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THE

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[1st of APRIL to 30th of SEPTEMBER,]

1836.

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By JAMES JOHNSON, M.D.

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AND

HENRY JAMES JOHNSON, Esq.

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Intelligence.

BIRMINGHAM ROYAL SCHOOL OF MEDICINE AND SURGERY.

AT a Quarterly Board of the Governors of this Institution, held June 1st, it was resolved, as a mark of respect to the President, to adjourn the Annual Meeting until the 26th of September—his eightieth birth-day. The following arrangements, in reference to the Prize Essays to be contended for by the Students, were determined upon. The Essays "*On the Influence of Air and Soil as affecting Health*," premium Ten Guineas, offered by the Rev. Dr. Arnold. "*On Injuries of the Head*," premium Five Guineas, offered by Mr. Meredith. "*Clinical Reports*," premium Five Guineas, offered by Dr. Booth. To be sent in on or before September 1st next.

The Essays "*On the Influence upon Health of Alcoholic Drinks as an Article of Diet, including the Considerations whether any Quantity of any Kind be necessary for the Maintenance of Health even in the Case of those who are engaged in Laborious Occupations*," premium Ten Guineas, offered by the Rev. J. A. James. To be sent in on or before January, 1837. To be awarded by the Rev. Chancellor Law, Rev. Dr. Jenner, Rev. Mr. Lawson, Rev. J. A. James, Dr. Booth, and Mr. S. Cox.

The Essay "*On the Capillary Vessels, viz. their Division, Conformation, Situation, Modes of Communication, Structure, Physical and Vital Properties, Functions, and Morbid Anatomy.*" Premium Ten Guineas, offered by James Upfill, Esq. To be sent in on or before September, 1837.

WILLIAM SANDS COX, FRS. *Hon. Secretary.*

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Intelligence, Correspondence, &c.

Dr. SIGMOND's Letter to Dr. GOLDING came to hand.—Dr. THACKER's Communications came far too late, the last sheet of the Journal being closed.

Several Works arrived since the Bibliographical Record was put to press.

LITERARY INTELLIGENCE.

The Report of Sir David Barry and Dr. Corrie on the Medical Charities of Ireland will shortly be published. These Gentlemen were appointed by Government Commissioners for investigating the Management of Hospitals and Asylums.

A Bed-side Manual of Physical Diagnosis, by Charles Cowan, M.D. It is in the press, and will very shortly be published.

THE

Medico-Chirurgical Review,

No. XLIX.

[No. 9 of a Decennial Series.]

APRIL 1, TO JULY 1, 1836.

An Essay on the Laryngismus Stridulus, or Croup-like Inspiration of Infants. To which are appended, Illustrations of the General Principles of the Pathology of Nerves, and of the Functions and Diseases of the Par Vagum and its principal Branches. By *Hugh Ley*, M.D. &c. &c. Octavo, pp. 480, with Plates. Churchill, London, March, 1836.

[First Article.]

If any one should conceive that this is an essay merely on that remarkable affection, which the late Dr. Gooch quaintly termed "child-crowing," he will be very much and agreeably deceived. Upon this essay, embracing a vast mass of ingenious physiology, important pathology, and valuable facts, Dr. Ley has expended the patient labour of a German, the vivacious acuteness of a Frank, and the masculine reason of a Briton. A perusal of this volume has, indeed, filled us with astonishment how the author, who is yet but a young man—how an active practitioner, who is also a valetudinarian, had been able to collect such a vast granary of illustrations for his subject, from authorities of every age and nation! When it is considered that the work under review embraces an investigation of the par vagum, together with all its diseased conditions, structural or functional, and those of its branches, especially the recurrents, we need not wonder at the size of the volume, however we may admire the patience and industry of its compiler. This collection of facts and opinions, in the very words of their authors, will, indeed, prove a great treasure to future authors and compilers, as a work of reference, saving them the trouble of original research. It will be a kind of "Burton's Anatomy of Melancholy" to the neurological writer, who will be able to appear very learned without going farther than Dr. Ley's book. At the same time, we freely confess that we do not expect that the whole or half of the work will be generally read, by those who take up the volume to learn the nature and treatment of "laryngismus stridulus." Readers now-a-days, except when they are preparing to be writers or lecturers, seldom take the trouble of sifting evidence very nicely, or comparing

all that has been said on each subject by numerous authors. They are eager to get at the *results* of the writer immediately before them, and leave his various *data* for the literary gourmand. The great majority of his readers, indeed, will wonder why Dr. Ley should take the trouble of collecting so much evidence respecting a disease, which is, comparatively speaking, little frequent, and which, by some writers, for instance Mr. North, is represented as very seldom fatal. These reasons, however, are not valid, for the disease is more common than is supposed, because it is often confounded with other complaints that resemble it—and it is certainly a formidable affection, and not seldom dangerous or fatal. But to proceed at once to our subject.

Dr. L. thinks that, until the beginning of the present century, the disease in question has been described under the vague terms of asthma and struma —" thus associating, as Millar, Molloy, and perhaps Marsh have done, these two affections, which so constantly co-exist in the same individual." Russel and Haygarth are quoted by our author, and it is quite evident that, in 1761, Dr. James Simpson published a thesis in Edinburgh, in which is described the disease in question, under the name—" de Asthmate Infantum Spasmodico," occurring at the commencement of dentition, and consisting of " the most violent paroxysms of asthma, accompanied with a shrill sound—(the clangose sound of Russel)—occasionally destroying life in a single attack—otherwise remitting, and very apt to be reproduced by any violent agitation of the body—continuing its course without cough, or, if any, very slight and dry."

Lieutaud was familiar with the disease, and calls it " catarrhus suffocans." He divides it into two species—one from spasmodic constriction of the glottis—the other from a clogged state of the bronchi.

Dr. J. Millar published a monograph on the subject, and it has gone by the name of " Millar's asthma." Dr. M. practised in a damp and cold locality on the borders of England and Scotland, and remarks that enlargement of the cervical glands was common among children. The following description removes all doubt as to the disease being laryngismus stridulus.

" Children at play were sometimes seized, but it generally came on at night. A child who went to bed in perfect health, waked an hour or two afterwards in a fright, with his face much flushed, or sometimes with a livid colour, incapable of describing what he felt, breathing with much labour and with a convulsive motion of the belly, the returns of inspiration and expiration quickly succeeding each other in that particular sonorous manner, which is often observed in hysteric paroxysms. The child's terror sometimes augmenting the disorder, he clung to the nurse, and, if he was not speedily relieved by coughing, belching, sneezing, vomiting, or purging, the suffocation increased, and he died in the paroxysm."

" But if any of these happened naturally, or was exerted by art, the paroxysm ceased, and the child seemed perfectly well, slept during the remainder of the night, and continued to breathe easily till the following morning, when, if not sooner, he suffered a paroxysm more violent and of longer duration than the former. In very young children, if they were peevish, restless, and cried more than usual, a return of the disease might be expected."—xxv.

In the same year (1755), Rush of Philadelphia published an account of the same disease, addressed to Dr. Millar, and adopting his views. Rutty of Dublin, also, in the same year, notices a similar disease, which raged over an extensive district in Wicklow, Carlow, Kilkenny, &c. carrying off incre-

dible numbers of children. Passing over time and authors, we come to 1781, when Mr. Moss, of Liverpool, describes the disease as prevalent "in the sharp, keen air of the district in which he resided." This account was enlarged and commented on by Dr. Herdman. He comes to the conclusion, that it is neither more nor less than the asthma of adult age. Underwood appears to treat of the disease under the vague term of "inward fits." Wichmann, of Hanover, gives the best account of the complaint which is found in foreign writings. We must pass over Cheyne, Burns, and others, and rest, for a moment, with Hamilton, the present obstetrical professor in Edinburgh. He has described the disease accurately, as may be seen from the following short extract.

"The most formidable symptom (he says), except convulsions, which occurs during dentition remains to be noticed. It is a kind of convulsive stricture of the upper part of the windpipe, producing a peculiar crowing sound, as if from suffocation. This affection is quite momentary, and generally happens on awakening from sleep, or taking drink or food, or on the infant being teazed or irritated. Sometimes the fits are redoubled, but more often they are single. The disease is unaccompanied with fever, or any material derangement of the general health. When cough attends, which is not always the case, it is not hoarse, and the breathing during the intervals is perfectly free. Those circumstances distinguish it from croup, which it resembles in the crowing sound." —xxxix.

Dr. Clarke also has described the disease with great fidelity, and seems to be "the first writer who has noticed its association with a tonic contraction of the fingers, thumb, wrists, feet, and ankles, now well known under the very general designation of 'CARPO-PEDAL CONTRACTION.'" In this our author is probably mistaken. Dr. Kellie, of Leith, has given an account of it in the 12th vol. of the Ed. Journal—and quotes Underwood as having given a vague description of it also. It was the Editor of this Journal who first gave it the name of "CARPO-PEDAL SPASM," in the second volume of the (monthly) Medico-Chirurgical Journal (1817), pp. 448-9. When describing an exquisitely marked case of the disease.*

Of late years, the laryngismus stridulus has become better known through the writings of North, Davies, Pretty, and others. Gooch, who gave it the

---

* *Extract.* "The patient was a delicate female child, nineteen months old, and cutting four teeth at the time. When first seen, the child was seized, three or four times in the hour, with spasmodic affections of the respiratory muscles, consisting of repeated attempts to fill the chest, during which she threw herself back, as in opisthotonos, and appeared on the point of suffocation. The fits lasted ten or twelve minutes, when they declined, leaving the child fretful and irritable. The backs of the hands and insteps were swollen and hard. The thumbs were rigidly contracted, and locked across the palms of the hands. The toes were bent down towards the soles of the feet; and both wrists and ankles were rigidly bent by the flexor muscles, and kept permanently so. The little patient could take no food—was slightly feverish—bowels torpid—stools clayey, slimy, and offensive—eyes heavy and inanimate. For some days, no active treatment was pursued, and the child got worse. Leeches were then applied to the temples—calomel and antimonial powder were given internally—and the warm-bath was exhibited. Under this treatment the child recovered."—*Med.-Chir. Journ.* 1817.

quaint name of "CHILD-CROWING," considered it as probably an affection of the brain, of very fatal tendency. This was the opinion of Mr. Pretty. Dr. Marsh has traced, in the Dublin Hospital Reports (vol. V.), this disease with a masterly hand, connecting its cause with struma, and pointing out its best mode of treatment. So much for the history of laryngismus stridulus. We now come to a description of it.

This formidable malady consists essentially of a constriction of the glottis, impeding the ingress of air into the lungs, and sometimes so completely closing it as to suspend, for a few seconds, the respiration entirely. After vehement, or even convulsive struggles, the child succeeds in getting breath with a shrill sound, like the crowing of a cock, or the inspiration of croup. The attacks are paroxysmal, varying much in duration and intensity. Generally, the intervals are considerable at the beginning. Hours, days, and even weeks may intervene between the fits; but, in the progress of the disease, these paroxysms recur with alarming frequency, there being scarcely a complete interval. The degree of severity increases in proportion. The paroxysms themselves vary much in duration, being sometimes momentary, at others, protracted to a quarter or half an hour. In the early periods, the complaint usually attacks in the night, or after a tranquil sleep; but, when more firmly established, the fits occur at all times of the day or night. The names which the disease has acquired are numerous. Asthma, catarrhus suffocativus, croup, inward fits, spasm of the windpipe, &c. have been its chief denominations. To all these our author makes valid objections; but we need not adduce them here. He thinks the term l. strid. given to it by Dr. Good as the least objectionable. It marks the organ affected, and announces the leading and characteristic symptom. The "child-crowing" of Gooch is, he thinks, equally as good as laryng. stridulus.

"In the violent struggles for the recovery of the breath to which I have alluded, all the muscles supplied by the respiratory system of nerves, are thrown into violent action; the eyes are often involuntarily rolled upwards by the agency of the trochleares; the muscles of the face are expressive of agony, or occasionally convulsed; the head is thrown back by the muscles supplied by the spinal accessory nerve; the serratus magnus is in violent action; the diaphragm and abdominal muscles contract vehemently, and even the extremities are rigid. With all this, however, the face is commonly pallid, and has that lurid tinge denominated cadaverous; and the external veins, turgid with highly-carbonized blood, form black streaks upon the forehead and temples, which continue long after the cessation of the paroxysm." 11.

When the termination is fatal, convulsions not unfrequently precede death. Other symptoms are enumerated by authors; but they are not constant. Among these, may be classed the carpo-pedal spasm already alluded to.

In this place, namely the history, or rather the description of the disease, Dr. Ley suddenly, and rather strangely, plunges at once into the pathology of laryngismus stridulus.

"The cause of the crowing respiration to which I here advert, is either an enlargement of those absorbent glands of the lungs, 'which are constantly found at the root of the lungs, both before and behind the bifurcation of the trachea in the two bronchia, and frequently blend with others which lie upon the arch of the aorta, and not unfrequently between the carotids;' or a similar enlargement of the deep-seated chain of cervical glans, known under the technical appellation of the 'glandulæ concatenatæ.' The former may be enlarged from exposure to

cold, from frequent catarrhs, from disease of the lungs, pericardium, or heart, from a strumous taint, and probably from the extension of diseased action from the contiguous cervical glands, which, according to Haller and others, constitute a continuous chain with them; 'quæ cum aspera arteria descendunt, eæ utrumque pariter ejus ramum comitantur, et pulmonis grandia vasa circumstant et anteriores et posteriores.' In the adult, these glands, when morbidly enlarged, may seriously embarrass the respiratory function, and even instantaneously destroy life by suffocation; in children, when similarly enlarged, they may produce the crowing inspiration, preceded or attended by temporary, and even sometimes fatal, asphyxia. To the glands thus seated within the chest, I shall first confine my attention; but numerous instances have fallen within my observation, which prove that similar symptoms may be produced by enlargement of those cervical glands which accompany the trachea in its descent, and the morbid condition of which I shall have occasion afterwards to notice." 19.

For the first hint of this pathology, Dr. L. acknowledges himself indebted to Dr. Merriman. Since then, he has had repeated opportunities of tracing the connexion in question, and of verifying, by dissection, the relation which the symptoms bore to the diseased parts. Some cases are here detailed, which we shall briefly notice.

Case 1. A child, while cutting the incisors, became subject to wheezing, which, for a long time, was unaccompanied by any other particular symptom. Expectorants and leeches did not remove this wheezing. Country air had more effect. But the complaint returned with return to town, coming on in fits, chiefly in the night, with disposition to retch. One of them was very severe, and caused great alarm.

"The child was described to have been breathless for a while, pale and cadaverous rather than florid, or even purple, with its trunk and extremities rigid, its hands clenched, the spine bent considerably backwards, the eyes staring and frequently rolled upwards, and the countenance expressive of agony. At last, after an evident and severe struggle, the child recovered, with a shrill sonorous inspiration, like that of the croup or hooping-cough." 23.

An eminent physician considered the head to be in fault, and leeches were applied—but without advantage—rather with injury. Anodynes, with country air, were now employed—and with some benefit—but again the child got worse, and, on returning to town, Dr. Merriman joined in consultation. The child died, and an examination was permitted. Mr. Arnott examined the body.

"All the viscera were healthy. There was no trace of arachnitis, or vascular congestion, or water within the cranium. The abdominal cavity was free from disease, with the exception of a very slight enlargement of some of the mesenteric glands. The lungs were perfectly healthy, spongy, and crepitous. Upon inspecting the bronchial absorbent glands, to which, mentioning my expectations to Mr. Arnott, I directed his peculiar attention, my anticipations were fully realized. The cluster of glands at the root of the lungs, and about the arch of the aorta, were greatly diseased; one of them, as large as a moderate-sized chesnut, being full of the curdled, half-puriform matter, so characteristic of strumous inflammation; another smaller one having also imperfectly suppurated." 25.

We confess that, when we consider that this child died with symptoms, consisting of violent cough, "fever approaching to the character of hectic,

and of an unmanageable diarrhœa," we cannot see much ground for the support of the peculiar theory which this volume is designed to confirm.

Case 2. A child had attacks of breathlessness, threatening suffocation, ending in crowing inspiration, and accompanied by occasional fits of coughing. He was emaciated, and had had measles and hooping-cough twelve months previously, from which he had never perfectly recovered. The pulse was permanently rapid, with hurried respiration, irregular fever, and circumscribed hectic flush on the cheeks. There was mucous rattle, without expectoration. Dr. Ley apprehended disease of the lungs; and a consultation was had with an eminent physician, who is not named, but well characterised by "rapidity and general accuracy of discrimination of disease." Our readers cannot be at a loss as to who this physician was. He pronounced the complaint to be hooping-cough. Mineral acids, hemlock, infusion of roses, moderate aperients, and counter-irritants, were unanimously agreed upon. In a fortnight the child died.

"Upon examining his chest, the lungs were found honeycombed throughout their whole extent with vomicæ, varying in size from a pea up to that of a horse-bean or something larger, distinct, circumscribed, and encysted; but no one of them having, as far as could be traced, any distinguishable communication with the bronchi. There was very considerable enlargement of the bronchial absorbent glands, *to which I was disposed to refer* (as from the symptoms I had expected to find such morbid changes) *the rattle of mucus in the trachea*, the occasional brief suspension of the respiratory functions, the crowing inspiration, the violent spasmodic character of the cough, and its recurrence principally in the night; such symptoms being highly characteristic of such a pathological condition of the glands within the chest, but very uncommon in phthisis." 27.

We apprehend that few will be disposed to disagree with Dr. Ley in his first diagnosis—though we doubt whether pathologists of the present day will allow that the mucous rattle was the consequence merely of enlargement of the bronchial absorbent glands. It will also be observed, that in neither of these cases was the state of brain examined—nor that of the nerves themselves—the recurrents for instance—whose functions were supposed to be disturbed. We cannot, therefore, conscientiously admit, that these cases have afforded any grounds for the theory of our ingenious author. The following extract opens more clearly the theory of Dr. Ley.

"Examining minutely the preparations in my possession, as well as the enlarged glands in the fatal cases which I have recorded, it was obvious to me that the air-tubes had suffered nothing from pressure; the trachea retained its ordinary dimensions and form, and the bronchi, where they were cut through as they pierced the glandular mass, had still their regular shape and usual size. The symptoms, therefore, could not be ascribed to mechanical obstruction from compression of the air-tubes. Besides, the effect was produced, not upon the bronchi, where the disease was situated, but upon a mere fraction of the larynx at a distance from the diseased mass, the rima glottidis. This could only be effected by some influence transmitted through the nerves, and the mystery is completely solved when it is borne in mind that these glands are enlarged at the very part where the recurrent nerves turn round to be distributed in their ascent upon the fibrous texture at the back of the trachea, upon the lining membrane of the canal, and ultimately upon the opening muscles of the glottis, to influence the movement of that all-important chink; and that, in one of the preparations to which I have alluded, the nerve had been carried much out of its natural po-

sition, was flattened, and had undergone considerable change of texture from the morbid enlargement of the bronchial glands. From these circumstances it was impossible not to infer that the phenomena were the result of some effect upon these recurrent nerves produced by the enlarged and indurated glands in their vicinity, and, if so, it was by no means irrational to expect that, if a similar impression were produced upon these nerves in their course upwards to their ultimate destination, the muscles upon which the movements of the arytænoid cartilages depend, similar symptoms would be produced. This view of the subject opened a new and important field of investigation, both speculative and practical; and its interesting nature would have amply repaid me for the devotion of much time to the enquiry, even had the practical conclusions to which it leads been unimportant." 30.

A series of cases are now detailed at great length. These we must briefly analyze, because these form the bases of the whole theory, and, without a careful and rigid scrutiny of the data, we cannot expect to come to legitimate conclusions.

Case 3. A. W. aged 4 years, rickety and scrofulous, had been for some time affected with cough, coming on in nocturnal paroxysms, with sense of suffocation and sonorous inspiration, resembling crowing. During the day, the child appeared quite well—appetite good, bowels torpid—belly tumid. Dr. Ley directed his attention to the glands of the neck, and found them, from the angle of the jaw to the sternum, and along the clavicle, much enlarged and indurated. Gentle aperients were prescribed, with the mineral acids and tincture of hop. Nutritious diet—warm atmosphere.

" Within a week the cough had sensiby subsided; the child had one fit in the night instead of two, and that had been at once shorter in duration and less severe; the attacks of breathlessness had nearly ceased, the crowing was less marked, and *the glands were evidently diminished in size.* In another week the cough had become slight, and no longer caused any anxiety; and now the glands, which had been before as large as marbles, were reduced to the size of peas. A few days after this the child was sent, for the remainder of the Winter, to Clifton. The mother, who accompanied her, returned at the end of a fortnight, and called, with great thankfulness, to tell me that she had left her child perfectly free from cough or any other affection of its breath, in high spirits, joining other children in their sports, and undergoing as much fatigue as others of the same age; bearing well and with temper the confinement of a day-school, and with the 'lumps in the neck' scarcely to be felt, and not at all to be seen." 33.

All we shall say to this case is—valeat quantum valere debet.

Case 4. W. Scott, aged 2 years, was brought to Dr. Ley with strangling cough, chiefly coming on in the night. There was no fever—the limbs were extenuated, belly greatly enlarged, especially above and to the left of the umbilicus—appetite ravenous—digestion imperfect. The whole chain of cervical absorbent glands was found enlarged and indurated. Mild doses of rhubarb, mercury, and soda were prescribed. There was a scabby eruption on the scalp. This was Dec. 4th, 1833. 13th. No return for two or three days of the crowing—cough diminished—eruption disappearing (under proper means)—glands decreasing in size. 26th. No further attacks of breathlessness—the child soon recovered entirely.

Case 5. Caroline Rycroft, aged eight months, pale, flabby—father scrofulous—was taken with what was called a fit three weeks previously.

"During the attack the body was never violently agitated with convulsions, but the limbs were rigid and extended, the trunk bent backwards, the hands permanently clenched, after an attempt to grasp the first object within their reach, the countenance at first pallid, then '*of all colours, the face, in fact, like a corpse,*' the veins blueish, and '*showing very much,*' the lips first colourless, and afterwards livid; and altogether the child 'appeared to be strangling.' From this she at length recovered, with an interrupted crowing inspiration, when, after crying violently for three quarters of an hour, she fell exhausted into a tranquil sleep, which lasted for three hours." 26.

Leeches were applied, and some medicines had been given, since which the child had been better. There had been no return of the fits of great severity; but she was generally awakened in the night with strugglings for breath and crowing inspirations. She had clenched hands. In the day, this child was comparatively free from complaint. The glandulæ concatenatæ were enlarged. Rhubarb and soda were prescribed. The child recovered without any other remedies.

Case 6—March, 1834. A physician requested Dr. Ley to take charge of his child, who was subject to fits of crowing inspiration since the commencement of dentition. In other respects the child was in good health. By minute examination, Dr. Ley was able to detect "two pisiform enlargements," by pressing the fingers deep under the sterno-cleido muscle. These glands became more distinct after the lapse of a few weeks. The child had an attack of inflammatory croup during treatment for the other affection. The child recovered.

Case 7. This was communicated by Mr. Elwyn, of Poland-street. J. H. aged nine months, became affected, three months previously, with "something peculiar in its breathing." This soon came to "spasmodic crowing," especially in the night.

"The peculiar countenance, the distortion of the limb, and, above all, the visible enlargement of the cervical and even axillary glands, warranted a decided opinion as to the real nature of the complaint. The spasms or fits gradually increased, and more than once I was called in suddenly to witness the death of the child. Upon these occasions there seemed little or no hope of recovery; nevertheless, in time the purple countenance disappeared, the blanched lips resumed their hue, and respiration returned. The child, however, rapidly fell away, and, as it became weaker, the fits returned with less violence but greater frequency, coming on every quarter of an hour." 41.

The child died in three months from the invasion of the symptoms.

"*Post-mortem Examination.* 'The submaxillary, parotid, sublingual, and, indeed, almost all the glands throughout the body, were not only enlarged, but even apparently increased in number. The mesenteric particularly were diseased.

The bronchial glands upon the right side surrounded the recurrent nerve, which was completely imbedded in a cluster of enlarged glands. On the left side there was to be seen but one, and that one not large. It was about the size of a pea, very hard, and seemed to press upon the nerve, squeezing it, as it were, against the trachea. The nerve in its course was accompanied by other glands.'

The larynx was healthy, the lungs gorged from congestion, in some parts almost resembling pulmonary apoplexy. The heart was hypertrophied, the left ventricle being also enlarged." 41.

When we look at the great number of organic lesions discovered in the above dissection, any one of which might account for the death of an infant nine months old, we can hardly bring ourselves to the conclusion, that the enlarged cervical glands played so important a part in the phenomena during life, as Dr. Ley's ingenious theory would imply.

Case 8—*Dec.* 19*th*, 1833. W. C. aged 15 months, had been suckled by the mother. In the preceding March, the child had violent convulsions, and was largely bled from the jugular vein. Calomel, in smart doses, had also been given. From that period, there was a depression of the globe of each eye, the motions of which, however, were not otherwise altered. The child was now pale, flabby, extenuated—belly tumid—bowels torpid—stools offensive—no symptom of cerebral disease. It presents the carpo-pedal spasms.

"This child often awakes suddenly in the night, struggling for breath, with its hands clenched, its limbs rigidly extended, the spine bent, as in opisthotonos, the head thrown backward, the eyes staring, the face pallid and death-like, the lips colourless. The nurse is in constant fear that it may strangle, and therefore 'pats it upon the back, and shakes it violently to bring about its recovery.' At length, after vehement struggles, the breath is partially recovered with a sonorous inspiration, and the sound of '*phlegm in the throat*' is heard. Soon after this a fit of screaming ends the attack, and the child falls asleep." 42.

The neck was found studded with enlarged and indurated glands, like marbles or bullets. The gums were freely lanced, and the hyd. cum cretâ, with small doses of ipecacuan, rhubarb, and soda were given. The child was sometimes better, sometimes worse. On the 30th Dec. however, it had a "dreadful night," and the dyspnœa was so great, that the parents thought it would die. There were *now* symptoms of cerebral congestion, and leeches were applied to the head, with more active aperients, tepid bath, &c. The little patient improved gradually but greatly, and Dr. Ley left off attendance. Some time after this he was sent for in the night; but, being out of town, another practitioner was called in. The child recovered from that attack, but, a few days afterwards, it was seized suddenly in the night, and died before the practitioner could get to the house. Leave was obtained to examine the body. There were some thickenings of portions of the arachnoid, and slight serous infiltration between the membranes, but no water in the ventricles. The brain itself appeared more pallid than common. "Several glands were detected over the course of the recurrent on each side; and, upon the left side, a little above the clavicle, that nerve was completely imbedded in a surrounding glandular mass. The bronchial glands were not sensibly enlarged. The mesenteric glands were very considerably enlarged and indurated."

"Many other cases of the dependence of this disease upon glandular enlargement, some of which I shall have occasion to mention hereafter for other purposes, have fallen within my observation, and I can assert with perfect confidence, that in considerably above twenty successive instances, with one exception only, I could trace the enlarged glands either from the commencement, or

in the progress of the complaint; they have been either distinguished during life or discovered after death."

"I may now, therefore, I trust without arrogance, assume that enough has been said to establish the proposition, that at least a large numerical majority of instances of the crowing inspiration of infants are produced by the enlargement of glands, situated in the course and influencing the functions of the recurrent nerves, and even sometimes, probably, the par vagum. Some may perhaps be disposed to refer the disturbed state of the respiratory function in these cases to mechanical obstruction by direct pressure of the air-tube itself producing a diminution of its area. But, without entering minutely into this question now, I may content myself with alleging, in anticipation of such an objection, first, that there is no evidence of such a diminution of the calibre of the trachea; secondly, that infinitely larger tumours, as the goitre, situated directly over the trachea, produce no such effects; thirdly, that this canal will bear a degree of pressure from a hard and circumscribed tumour, which may produce ulceration of its mucous membrane and ecchymosis, without the occurrence of similar symptoms; fourthly, that the symptoms of this disease are not those of structural change producing mechanical obstruction of the trachea, as must be clear to all who are familiar with the phenomena arising from inflammatory deposits in that tube; and, lastly, that the seat of the disordered function does not correspond with the seat of the actual disease, which are, in fact, out of the reach of each other:—and these considerations lead me irresistibly to the inference, that it can only be by nervous communication between the disease and the muscles of the glottis, that the contraction of that chink, upon which the breathlessness and crowing inspiration depend, can be produced." 49.

Thus terminates the HISTORY of laryngismus stridulus. The second chapter embraces the—

CAUSES OF THE DISEASE.

The *predisposing* causes are *age*, since it is almost universally confined to infancy and childhood—constitution (it runs much in families)—climate and season (dampness and cold)—scrofula—bad diet. The *exciting* causes are placed by our author to the account of dentition—inflamed scalp—cerebral congestion—bronchitis—pulmonary disease—pericarditis.

CAUSES OF THE PAROXYSM.

Straining of the body—exercise—fretting and crying—cough—abdominal distention—suddenly awaking from sleep—fright—efforts to swallow—sudden application of cold. The investigation of these causes, predisposing and exciting, occupies 54 pages of closely-printed matter. We conscientiously believe that the author might have compressed all that is valuable in those 54 pages into half-a-dozen.

The following comprises the pith of the section on etiology.

"It results from this examination, that the predisposing causes are such as have a tendency to produce,—and do actually produce,—glandular enlargement, or to call into action a scrofulous tendency; that the exciting causes are such, as are peculiarly apt to occasion enlargement of the cervical or thoracic absorbent glands; and that the causes of the paroxysm are such as, by natural association without morbid influence, involuntarily close the glottis; that the breathlessness, which commonly precedes the sonorous inspiration, cannot, therefore, be from this closing of the rima glottidis, which, in such cases, is perfectly normal, but must arise from defective power in those agents, whose office it is to

open that chink; and, lastly, that the crowing inspiration, which is Nature's imperfect cure of the temporary suspension of breathing, arises from the chink being only partially open for the admission of air, and remaining so until some explosive expiration, such as screaming, crying, coughing, or belching, shall mechanically burst open the flood-gates, and perfect the recovery from the paroxysm." 103.

Chap. III.—Pathology.

This chapter occupies half a hundred pages, though the subject would seem to us to have been considerably developed in the introduction and in the first chapter, entitled the History of the Disease. We suspect that few of our readers are now to learn what Dr. Ley looks upon as the pathology of laryngismus stridulus. In combating the opinions of Rush, as to the spasmodic nature of the disease in question, our author observes that—

"It thus appears, that by three several morbid conditions, the pasage of air into and through the larynx may be impeded or interrupted, 1st, by inflammatory deposit producing mechanical obstruction, and interfering with the movements of the arytænoid cartilages, as in croup; 2dly, by spasm of the closing muscles of the glottis, as in the earlier stages of croup, perhaps in hooping-cough; and, lastly, by an enfeebled or paralytic state of the opening muscles of that chink:—and it is more than probable that 'there is often a mistake made, by considering the contraction of one set of muscles produced by torpor or paralysis of the antagonists for spasm.'" 107.

The connexion of this disease with disturbance of the cerebral circulation, Dr. Ley admits, does sometimes, though very rarely exist. He believes, however, that such disturbance is generally owing to the frequent interruptions to the breathing which take place in the paroxysms—and, therefore, that it is a consequence rather than a cause of the disease. The following principles will be admitted without dispute, as resulting from a comparison of a large series of facts.

"1st, That morbid impressions upon nerves produce their effects upon the remote distribution of their filaments; 2ndly, that all the branches of a common trunk have a similar disorder of function from the same morbid impression; 3dly, that the diseased conditions of nerves resolve themselves into those of excitement, upon the one hand, and those of defective energy upon the other; 4thly, that excitement, of which the most frequent causes are sudden mechanical impulse, vascular congestion or inflammation, structural disease, and sometimes simply functional disorder, is characterised by what modern continental writers delight to call an 'exaltation of function,'—a morbid or anormal excess of nervous energy; and, 5thly, that diminished energy which is commonly the consequence of some extraneous pressure, or of a solution of continuity, the result of accidents, of ulceration, or of wasting, is characterised by an enfeebled condition of the parts upon which the affected nerve is distributed, in all its various degrees, from simple torpor or 'benumbment,' up to the most complete paralysis." 120.

The glands affected in this disease, Dr. L. remarks, are all seated below, and frequently beyond the reach of, the superior laryngeal nerves, which nerves, therefore, preserve, unimpaired, their ordinary functions.

'Supplying, as they do, the closing, to the exclusion of the opening, muscles of the glottis, together with the lining membrane of the upper edge and surface of that chink, the rima glottidis continues to be closed in those associated actions, which are always accompanied with a temporary approximation of its sides.

Such are all-powerful exertions of the body, swallowing, crying, sobbing, violent cough, and even fright, as well as the accidental admission of any irritating substance within the chink, which, from its extreme sensitiveness to external impressions, is commonly denominated the '*sensible glottis.*'

It must, consequently, be either upon the par vagum, below the origin of the superior laryngeal nerves, or upon its recurrent branches, that the morbid influence of these glands must be exerted. If the cervical glands be exclusively in fault, I believe that the par vagum will be rarely implicated. These nerves are so deep-seated, are so close to, and even frequently under, the edge of the carotid artery, between which and the jugular vein they are commonly situated, that any agent which could there mechanically influence the nerves, could not fail, also, materially to interfere with the circulation in those vessels, of which, however, there is commonly no decisive, if any evidence. But these glands are imbedded in the same cellular matrix with that which surrounds, and to a certain extent protects, the recurrent nerves; and they constitute, when in a state of morbid induration and enlargement, hard nodules in such direct contiguity and contact with the latter nerves, that these can scarcely escape their injurious effects.

If those general propositions connected with the pathology of nerves, which I have ventured to announce, are well founded, there can be little difficulty (the seat of the morbid impression being ascertained) in understanding where the symptoms will manifest themselves, and what will be the nature of those symptoms. If it be true, that such morbid impressions upon the trunks of nerves produce no effect above, and little, if any, at the precise point which is the seat of injury or disease, but principally, if not entirely, at the remote distribution of their filaments, the functional disturbance of the recurrent, consequent upon disease or injury, will betray itself in the transverse muscular bands connecting the extremities of the rings of the trachea, in the sensibility of the mucous lining of that canal, and in the movements of the glottis; and the morbid effects will be restricted to the trachea and larynx, for upon these parts alone is this nerve distributed. But if the par vagum be also affected either above or below the part which gives off the recurrent, the heart may suffer, though, according to experiment and observation, only temporarily and inconsiderably; the lungs, and especially the air-cells, may be seriously affected; and the stomach, particularly its larger extremity, will not escape.

If, again, it be true that all the branches proceeding from a common trunk have a similar disturbance of function from the same injurious impression, then, if one part which derives its energy from a given source be excited, all the other parts deriving their supply from the same common trunk will be similarly affected; so, if defective energy manifest itself in one portion of the distribution of the recurrent nerve, it may be expected that the rest of its branches will be affected with similar torpor; and since, in the laryngismus stridulus, there is no evidence of the operation or existence of any of those causes which produce excitement of a nerve; since the glands, with the enlarged and indurated states of which the disease has a common and all but invariable connexion from their texture, form, and situation, are infinitely more likely to produce direct compression than sudden impulse, neurilematous congestion, inflammation, or structural change of the medullary matter of the nerves themselves, it appears, at the least, extremely probable, that this disease is more nearly allied to partial paralysis from pressure, than to convulsive movement from morbid excess of energy or of action in the nerves affected." 124.

Dr. Ley admits that "this may appear a startling proposition," especially to those who have habitually looked upon the disease in question as one of spasm. Dr. L. thought for a long time, *more majorum*, that spasm resulted from excess of nervous energy. But reiterated observation induced him to

think otherwise. The symptoms, he remarks, if minutely examined, are not those of excitement, either of the par vagum or recurrents. On the contrary, they bear a striking resemblance to those resulting from division of those nerves, in physiological experiments.

"This condition of the nerves, whilst it explains satisfactorily all the phenomena, derives essential confirmation from the structural changes observable in the nerves themselves. They will be frequently found flattened, so as to resemble tape, and so thin, as partially to transmit light: upon other occasions, however, although they may preserve their rounded form, they become atrophied or withered. These changes I have seen in many instances, and they are strikingly exemplified in the preparation from which the annexed engravings are taken. In no one instance have I been able to recognise the slightest appearance of inflammation, which always, where the *atrophie* is the result of such disease, is found upon the borders of such withered portion; there has been no trace of the bright redness, swelling, separation of the filaments from each other, close network of vessels, increased vascularity of the interstitial cellular tissue of the nervous cords, which, according to M. Gendrin, are the anatomical characters of acute neuritis; nor the serous infiltration, the thickening, and induration of chronic inflammation; nor the ramollissement of gangrenous inflammation; nor the deposit of pus amongst the filaments, the consequence of suppurative inflammation, noticed by M. Martinet; and, in the absence of all evidence of the existence of such conditions, even in any part of the course of these nerves, we are not entitled to assume them. The inference, therefore, from all this appears to me irresistible, that it is in consequence of the compression and consequent interruption to the function of these nerves that *atrophie* occurs; and this affords additional evidence, where it is found, that the cause of the symptoms throughout has been paralysis from simple pressure.

Such are the grounds upon which I rest the doctrine of the dependence of this very peculiar complaint upon paralysis of the muscles supplied by the recurrent nerves, rather than upon convulsive movement of those, which derive their energy from the superior laryngeal branches of the par vagum." 134.

Our author next proceeds to notice and answer many objections that have been offered to his doctrines, as propounded in our contemporary, the Medical Gazette. We confess that, to our apprehension, he has not been very successful on these points. One reason of this failure appears to be, a less amount of ingenuity than the author exhibits upon other occasions. Thus, to the objection "*that, if these glands acted upon the principle of compression, the pressure being permanent, the symptoms should be so too,*" Dr. Ley has replied in arguments of a rather feeble character. As the objection of permanency of cause and periodicity of effect is the greatest stumbling-block which Dr. Ley meets with, we shall allow him to speak for himself—and we will also help him a little on the occasion.

"Some, whose opinions I respect, see in the paroxysmal character of this disease, an argument against its dependence upon enlargement of glands, which, being a permanent cause, should according to them produce a permanent effect. This, however, applies at least with equal force to the other assigned causes, and especially to vascular turgescence or excitement within the cranium. But, although it may be true that the enlarged glands constitute a permanent disease, it by no means follows that pressure is constantly exerted,—at least to an extent which is sufficient to paralyse the nerve. In some positions, and probably in a relaxed state of the muscles of the neck, there may be no morbid influence exerted. A gland, which, when the neck is straight and quiescent, is not directly over the nerve, may be brought in contact with its surface upon a sudden change

of posture; and the muscles, then in vigorous action, may at the same time so bind down or push inwards the tumour, as to produce a morbid effect; hence, in some instances, we hear of the fit being produced by a sudden twisting of the neck. Or the gland, although constantly over the nerve, may require additional compression to produce the effect; hence a fit of crying, or of coughing, or even of hiccough from flatulency, will not unfrequently prove the occasional cause of a fit, because, in these states, the muscles of the throat are notoriously in violent action. Again, the causes may vary in kind and intensity, and the size, permanence, and hardness of the tumours will vary accordingly. A bubo from simple irritation, as from chafing, will rapidly subside upon soothing the local cause; and so in this disease, within a few hours from irritation of the gums or membrane covering a tooth, the glands swell, and the paroxysms occur in rapid succession; but, upon lancing the gums freely, the excitement is subdued, the glands diminish, and the fits often first become less frequent and shorter in duration, and then entirely disappear.

But the pressure, and possibly even the paralysis, may be continuous, and yet the manifestation of this state be occasional only. This, it is now well known, is often the case in paralysis arising from local pressure upon the respiratory nerve of the face, as has been satisfactorily shewn in the papers of the late Mr. Shaw upon this subject, and in the observations of Sir Charles Bell. In these cases, the defective power is often not observed until speaking, mental emotion, or difficulty of breathing, call these muscles into vigorous action; then, one set of muscles acting to the exclusion of their antagonists, the face is distorted. It is probably the same with the glottis. Although physiologists speak in general terms of the opening and shutting of this important chink in ordinary respiration, it must be obvious that in neither of the alternate actions of the respiratory function can it be completely closed. In inspiration it must admit the entrance inwards, in expiration, it must equally allow the escape outwards of the air; in both, therefore, it must be pervious; and as to the slight period which intervenes between the two, the labours of the physiologist have taught us nothing upon a point, which, after all, perhaps, is scarcely worthy of inquiry. We know, however, that the medium state of this elastic chink, when uninfluenced by muscular agency, is that of permeability to the ingress and egress of air. It is so in the still-born fœtus; it is so when all nervous energy is annihilated by the division of the four laryngeal nerves, as was ascertained by an experiment of Majendie. In the tranquil slumbers of the infant, and even in an adult who is in perfect health, no expansion of the nostrils, no raising of the shoulders is observable during sleep; and it is probable that the same thing obtains with respect to the glottis. We are unconscious of any movement of this part in ordinary respiration; we know that it is always open unless closed for some special purpose, as to prevent the intrusion of an extraneous substance into the windpipe; it even opens, after it it has been closed, in that short expiratory action, which, in the ordinary state of things, immediately succeeds the effort to swallow, and which it requires a positive and almost painful exertion to interrupt. It is upon the whole, therefore, more than probable, that in ordinary and easy respiration, the muscles of the glottis are little, if at all, exerted. But when the breathing is embarrassed from any cause, as in the experiment of Le Gallois, when he separated the larynx from its attachment to the os hyoides, that he might see the movements of the glottis, or after the half-accomplished purpose of the suicide, when the movements of the glottis were exposed to the view of Sir Charles Bell and others; then an obvious and even considerable opening and shutting of the glottis may be seen. And, as paralysis of the muscles supplied by the respiratory nerves of the face and neck, in some cases only manifests itself when the muscles of one side, in a healthy condition, act unopposed by their antagonists, so, in the glottis, the effects of the enfeebled and even paralysed state of its opening muscles is only observed in those more vigorous

efforts, which are made when the respiration is hurried or impeded—as in fright, in sudden waking from sleep in consequence of some strong external impression, in screaming or crying, in coughing, or when the descent of the diaphragm is prevented by distention of the alimentary canal, whether from the accumulation of indigested or feculent matters, or simply from flatulency, the result of indigestion. All violent exertions of the body will, by the closure of the glottis which such exertions imply, occasion a paroxysm. So, according to Millar, 'children at play were sometimes seized;' according to Clarke, 'the attacks are often brought on by straining, by exercise,' &c.; and these facts curiously correspond with the results of the experiments of Le Gallois, who found after the division of the recurrents in dogs of the age of three months or more, that the embarrassment of respiration was not sufficient to destroy them; 'cats, however, were more inconvenienced, *and if agitated or forced to walk, often fell down as if suffocated.*' In all these cases of vigorous and forcible muscular exertion, the closing muscles of the glottis, acting without antagonists, cause such an approximation of the sides of the glottis, as, existing in one degree, may occasion a slight wheezing; in a second, and greater, may produce the crowing inspiration from the rush of air through the constricted aperture; and in a third, and still greater degree, may hermetically seal the larynx against the admission of air, occasioning asphyxia. This latter state is generally only temporary, and is commonly followed by the sonorous inspiration, which is Nature's remedy rather than the essential disease; and this natural cure is brought about either by the gradual cessation of action of the closing muscles, in conformity with that universal law of muscular motion, that after contraction the fibres will relax of themselves, or from some temporary cause of pressure, which had influenced the nerves by forcing the glands inwards, being diminished or removed. Then, nervous energy being restored to the recurrent, the parts which it supplies recover their tone and power of action, and again open the chink for the purpose of respiration. More, perhaps, is to be ascribed to the restoration of the power of contraction in the opening, than to the cessation of action in the closing muscles, as it is found that, if the inability to inspire continues uninterruptedly for the space of about two minutes, the child then falls a victim to the disease; in the language of Capuron, 'l'enfant a été réellement suffoquè.' Had the cause of the closing of the chink in these cases been spasm of the closing, rather than paralysis of the opening muscles, it might have been expected that, in the state of relaxation of all the muscular textures preceding death, such spasm would have relaxed, and the breathing have been re-established. This happens in the most violent convulsive maladies with which we are acquainted. In fatal cases of epilepsy and puerperal convulsions in adults, and of true convulsions from cerebral excitement in infants, it is almost invariably found that it is rather in the comatose state which succeeds the attack, than in the convulsions themselves, that death commonly occurs; and even in hydrophobia, a cessation of the paroxysms generally occurs for some hours previously to the death of the patient. A very slight degree of power, applied in the proper direction, would be sufficient to open the glottis in these attacks of laryngismus; but that force is lost because the muscles, which should exert it, are paralysed. In the similar condition produced by complete division of the recurrents, air could not be drawn from above downwards by the agency of a syringe, the resistance being like that produced by putting a finger upon its extremity; but in the opposite direction, from the trachea upwards, air could be injected by the employment of very inconsiderable pressure upon the piston. So a very moderate action of the opening muscles, when they have regained their influence, may suffice to render the glottis again pervious; or it may be that in screaming, with which the fit often terminates, and in coughing, which is not uncommon, the expiratory effort acting, like the syringe, from the lungs upwards, may produce mechanically the same effect, and open the chink." 149.

But why did not Dr. Ley ask those who object to *permanency of cause*, as inconsistent with *periodicity of effect*, to explain numerous examples of this same inconsistency, which every day occurs to our observation? Is not the cause of an intermittent fever, in Walcheren, or Batavia, or Lincolnshire, present every day, though the effect is perceptible every other day? If it be replied—"Oh! this is not an *organic* cause"—then we meet our objector on his own ground. The man who contracted ague in a malarious district at last leaves that locality, and removes to a healthy situation. But he carries with him enlarged spleen or liver—and this enlargement will produce as complete an ague as ever was seen in the world. Here the cause is organic and permanent, though the effects are periodical. Where, we would ask, is there a disease, whatever be its cause, that does not occasionally assume a periodical character? Fever, the most general and continued of all, has its diurnal exacerbations and remissions—nay, its complete remissions. Asthma, which is now universally allowed to be most commonly dependent on organic disease of heart or lungs, has its periods.

Tic douloureux, however organic and fixed may be its cause, has its periodical attacks, however irregular they may be—and so has the whole class of neuralgiæ. Look at insanity, which every one now allows to be a bodily disease—has IT not its paroxysms and lucid intervals? Even MONOMANIA has been repeatedly proved to be periodical, though the causes must be permanent. A man has a delusion every other day, week, or month. Is it rational to suppose that the cause of this takes place at such epochs only? It is quite ridiculous to entertain any such supposition. In fine, every malady to which the human frame is subject has, occasionally, a tendency to periodicity, whether the cause be of an organic nature, demonstrated by the scalpel, or occult, and incognizable by the senses. And, so far, we regard this paramount objection to Dr. Ley's doctrine as perfectly futile, and rebutted by every day's experience. Still, we fear that considerable doubts will be entertained by a large majority of the profession, respecting the ingenious pathology broached and sustained by our author. We confess, indeed, that we ourselves are not quite converts to the doctrine. There is something about it, or in it, which engenders scepticism in our minds; and we need not say that we are unable to *compel* our belief or faith on any subject, whether in physic, politics, or religion. The frequent connexion of carpopedal spasm with the crowing inspiration, is not well accounted for by the present theory.

The fourth and fifth chapters, on diagnosis and prognosis, occupying between thirty and forty pages, we must pass over without notice. Dr. Ley has done himself and his subject great injury, by unconscionable prolixity. Laryngismus stridulus, in the hands of Dr. Ley, has occupied more space than did the "Practice of Physic" in the hands of the immortal Cullen! Whatever authors may avow and protest, we strongly suspect that one principal object of writing is—*to be read*. Now we venture to predict, that the whole of this volume, valuable and erudite as it is, will never be read by any one individual in this world. Those who are engaged in actual practice will not be able to afford the *time*—those who are waiting for avocation, will not be inclined to dedicate the *labour* for such perusal. Est modus in rebus, is a maxim which authors, and especially medical authors, should never forget.

CHAP. VI.—TREATMENT.

This department, occupying nearly one hundred pages, will probably be that most carefully perused—though, even here, the besetting sin of our highly-gifted author—prolixity—is not a little conspicuous. And not prolixity alone—but repetition.

There can be no doubt that, in a disease whose pathology was so little understood, the remedies have been rather enumerated, than arranged or explained. They have been suggested by some loose analogy, or sanctioned by downright empiricism. If the experience of the profession shall confirm the connexion of the complaint in question with enlargement of the cervical or absorbent glands, then we shall have a clue, or rather a key, to the therapeutic part of the business.

"In the treatment, therefore, of this complaint, it should be a primary object to ascertain if these glands are enlarged, and tracing, if possible, the producing cause of such enlargement, to adapt our remedial measures to that cause. Nor must we, simply from difficulty in detecting its existence during life, conclude that there is in reality no such pathological condition. Tumid glands may, as has been already shewn, escape detection, even when seated in the neck; whilst, if situated within the thorax, they are always beyond the reach of our external senses. But, as similar diseased conditions commonly produce the same or similar results, we infer from the occurrence of the latter the existence of the former. It is thus that we determine as to the existence of phrenitis, pneumonia, pleuritis, laryngitis, and other maladies beyond the reach of sight and touch; it is this mode of reasoning which, being amongst the elementary principles of medical logic, constitutes the foundation of most of our pathological conclusions and practical inferences. When, therefore, in certain complaints not necessarily productive of the croup-like inspiration, we find the two co-existing, and more especially if such complaints are notoriously apt to produce or to be accompanied by enlargement of the glands of the absorbents of the neck or thorax, we shall probably rarely err if we adopt the conclusion, from the coincidence of the laryngeal affection, that there is in reality concurrent intumescence of the glands." 192.

Again:—

"But the pathological condition of these glands only establishes the liability to the attacks; the paroxysms generally require for their production the intermediate agency of some other event which is to be considered as their exciting cause, just as happens in another formidable malady, the angina pectoris, in which both the respiratory function and the action of the heart are temporarily suspended, and in which, though commonly depending upon structural disease of the coronary arteries which is a permanent morbid condition, some additional physical or moral agency is generally required to produce a paroxysm.* It is, therefore, a second, but far from secondary point in the treatment of the laryngismus stridulus, to distinguish, and to prevent or counteract, the operation of these causes of the paroxysms." 193.

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* "In the case of an illustrious surgeon, who fell a victim to the disease, 'the first attack was produced by an affection of the mind, and every future return of any consequence arose from the same cause; and, although bodily exercise or distention of the stomach brought on slighter affections, it still required the mind to be affected to render them severe.'—*Life of John Hunter, by Sir E. Home.*"

The analogy between angina pectoris and this disease is not very good. In the first place, ossification of the coronary arteries is quite given up by all pathologists of the present day. In the next place, genuine angina pectoris, in a majority of cases, presents no appreciable organic lesion before or after death—the disease being, in fact, a neuralgia, rather than change of structure. If a neuralgic affection, therefore, is capable of producing the dreadful symptoms of angina pectoris, and even death itself—so might a nervous affection produce laryngismus stridulus.

But to return. Besides attacking the predisposing and exciting causes, and thus preventing the disease, we must resort to remedies for the purpose of checking the paroxysm itself, which often threatens death. And here our author goes over again the long list of predisposing and exciting causes, which occupied so much space under their own heads previously. Thus, age, constitution, climate, seasons, diet, dress, &c. are all *re-discussed*, in respect to their *remedial* agency, in contradistinction to the same agents in an etiological character. This plan is, no doubt, logical, but, in some respects, it is rather prolix. If, for example, we are told in one chapter, that bad diet and damp localities predispose to laryngismus stridulus, it is hardly necessary to have another chapter to inform us, that good diet and dry situations are defences against the said disease. Under the head of DIET, however, we find some excellent observations, though they certainly would have come in more appropriately under the head of causes than prevention of the disease under consideration. We shall here introduce an extract respecting the bringing up of children by hand.

"It is thus alone that, in the absence of speech, we can investigate the ailments of children; but it is a mode of physical expression which, being little under disguise, and liable neither to the exaggerations of the hypochondriac or morbidly sensitive, nor to the extenuation of those who fear the visits, the restrictions, or the doses of the doctor, is perhaps as little liable to misconception as even the articulate language of the adult. This method of inquiry has been well noticed and not unduly eulogized by Underwood and others, but particularly by the late Dr. Clarke, who says, 'It has been argued that the diseases of infant children could not be investigated, because they are not capable of describing their complaints, and that a physician, on that account, cannot understand them. This, however, is not altogether true. Their colour, figure, fatness, leanness, paleness, redness, the tone of the skin, the general or local heat or coldness, gestures, cries, brightness or dulness of the eyes, the state of the pupil, the direction of the eyes, the state of the ossification, the straitness or deformity of the skeleton, the tone or atony of the muscular fibres, the state of the abdomen, enlargement of the viscera, the state of the respiration, the various secretions, the excretions, their number, colour, consistence, texture, smell—all these, and many more symptoms of the state of health or disease present themselves to the consideration of an attentive physician, and leave him without an excuse if he neglects a part of his duty in which the feelings of parents and the good of society are so materially concerned, as in the cure of the diseases of children.'*

Amongst the functions and organs thus enumerated, the state of the alimentary canal has peculiar interest, because here will be first manifest the evidence of the injurious consequences of this mode of rearing. Whilst the evacuations

* Commentaries on the Diseases of Children, p. 34.

continue healthful, there can be no reason for alarm or interference. The appetite being unimpaired and the digestion perfect (the latter being proved by the appearance and due frequency of the stools, together with the absence of intestinal pain), the body will be well nourished, the sleep uninterrupted, the spirits cheerful, and the whole child will present a healthful aspect. But the very earliest tokens of disorder require attention. At first, probably, the food will merely pass through the canal undigested; if milk has been the principal article of diet, it will appear curdled in the evacuations; if farinaceous substances, especially arrow-root, barley, flour, or even bread have been employed, there will appear in the stools a powdery mass, pasty when recently discharged, and when dry easily broken down like baked flour, though cemented by the secretions of the canal and tinged with bile. As yet, however, there may be no disordered secretions. The colour of the evacuations may be good at the time of their expulsion, but, from exposure of the undigested food in its moistened condition to atmospheric influence, it turns sour; and the acid thus generated, as in the experiment with vinegar upon the colouring matter of bile by Tiedemann and Gmelin,* corroborated by others, tinges after a time the whole mass of a green colour.

The above is, commonly, the first in the series of injurious appearances. Afterwards, the undigested aliment brought in constant contact with the sensitive mucous lining of the canal will irritate its secreting apparatus, and produce slimy, discoloured, offensive discharges from the bowels, not unfrequently tinged or streaked with blood, combined with little if any true feculent matter, and commonly attended with much abdominal pain. Under such circumstances, alimentary materials feed disease, but *not* the constitution; the child screams from attacks of intestinal spasm; assimilation is defective; the countenance no longer preserves its roundness and healthy character, nor the limbs their plumpness; the skin, pale and flabby, hangs loosely upon the extremities; the muscles lose their firmness and contractile power; this occurring in the abdominal parietes —Nature's waistband—they offer little resistance to the distention of the intestinal canal from flatulency, and the infant has that peculiar combination, so constantly observed in ill-nourished children, of tumid and tense belly with extenuated limbs. The bones, also, losing their solidity, become twisted from posture, from pressure, or from the action of their own muscles; and, if there be any constitutional propensity to glandular enlargement, it will next to inevitably occur in those parts in which such morbid condition is particularly apt to occur, as in the neck or mesentery, and not unfrequently in both.

The removal of these undigested materials and acid contents of the bowels is necessary; and this must be effected by the mildest possible aperients, as a little castor oil, magnesia, or a little rhubarb and magnesia; or, where there is not yet any manifest disorder of the secretions, by emollient glysters, which hurry the passage through the intestinal tube of that which, if retained, would, prove a source of irritation. These will also soothe the bowels, abundantly prone under these circumstances to excitement, rather than add to the irritation which is too frequently the result of acrid cathartics; and will thus interrupt the series of evil consequences. Much may also be done by the regulation of the diet, trying the various alimentary substances usually employed for the food of children, according to the principles of selection already noticed, until some one kind shall be found to agree. If all kinds of farinaceous substances ferment, distend, or irritate, or if they even pass through undigested, it may be necessary to have recourse to animal substances, as the 'hartshorn jelly,' so much recommended by Underwood, or the 'weak mutton, chicken or beef broth, clear and free from fat, mixed with an equal measure of mucilaginous or farinaceous

* Recherches sur la Digestion. Prem. Partie, p. 74.

decoctions' directed by Clarke; and there may be instances in which it may be requisite to use these animal decoctions uncombined." 213.

Under the head of scrofula, Dr. Ley enumerates the long list of remedies that have been held as specifics in this *opprobrium medicorum*. He is of the same opinion with ourselves, that there is no specific for this malady, and that all the boasted remedies are useful at times, and only when properly employed. Dr. Ley dwells judiciously on the good effects of change of air —especially of change from town to country—on scrofulous children. In fact, his section on scrofula, as one of the predisposing causes of laryngismus stridulus, is a very good dissertation on the disease—a much better one than many of those monographs on scrofula, which are published *ex professo*, and with the utmost formality. Dr. Ley, indeed, will be more frequently quoted—or rather *appropriated*, by authors, for those diseases of which he does *not* treat, than for laryngismus stridulus. The reason we have before explained.

As inflamed scalp sometimes produces enlargement of the cervical glands, so soothing applications, as warm water, milk and water, or even poultices, followed by proper ointments, will be judicious.

Difficult dentition is by far the most frequent of those local irritations which lead to lar. stridulus, through the medium of enlarged glands;—hence the propriety of lancing the gums—and that at an early period.

"When, therefore, the crowing inspiration occurs before the deciduous teeth have reached even nearly to the surface of the gums, and the cervical glands are found, or even suspected to be, enlarged without other assignable cause, we should direct our attention to the teeth, and we shall be abundantly justified in having recourse to an '*anceps remedium potius quam nullum.*' We ought to lance the gums and divide the membrane of those teeth, which, according to their usual order of succession, may be expected to be advancing." 242.

Cerebral congestion may be the cause, coincidence, or consequence of the disease in question. But it is clear that, where the symptoms of head-affection exist, we ought to counteract them by the usual means. These, of course, we need not detail. The same reasoning will apply where there are evidences of pulmonary, bronchitic, or cardiac inflammation. We need not re-open the various other occasional causes, as straining of the body, immoderate exercise, fretting, cough, abdominal distention, &c.; all these must be obviated by means which are obvious to every well-informed practitioner. On these points, our author has descanted copiously and sensibly—though, perhaps, somewhat tediously. We shall, therefore, pass on to the—

TREATMENT OF THE PAROXYSM.

At the head of the list our author places the warm-bath, in which the child should remain during the whole of the attack—at all events for a quarter of an hour. The temperature should be about 98°. Whilst in the bath, cold water should be sprinkled on the face, which is generally succeeded by a short inspiration and a lengthened expiration—and this again by a scream, which usually puts a period to the paroxysm. It is also useful to apply ammonia, if at hand, to the nostrils. Irritation of the pharynx by a feather will sometimes induce vomiting, which will of course solve the spasm of the glottis. Striking the child on the back, or roughly shaking it about, is sup-

posed by nurses to be a good process—and it is so—but, according to our author, its utility depends on its causing the child to cry. Millar asserts that purging will solve the paroxysm—probably by throwing the muscles of the chest into action. We cannot wait for the operation of a purgative given by the mouth. An enema will be best, and into its composition should enter assafœtida, or turpentine if at hand. In such urgent and dangerous cases, our author asks, might not the forcible introduction of a tube into the glottis—or tracheotomy itself, be resorted to with advantage? We think it would be exceedingly difficult to introduce a tube into the larynx, during the convulsive efforts of a child in this state—it is not very easy in the apparently lifeless body of a person in a state of asphyxia. But tracheotomy ought, undoubtedly, to be had recourse to, if other means fail. A lancet is all that is necessary to effect the operation, as people must not be nice on such occasions. The wound can be kept dilated by a piece of curved card. The operation has been successful in the hands of Dr. Marsh, of Dublin.

"Such are the practical suggestions which I have to offer, as to the treatment of those most frequent forms of the crowing inspiration, in which the constriction of the glottis arises from injurious compression, by tumid absorbent glands, of the nerves which supply the trachea and those muscles whose office it is to open the rima glottidis, when requisite for the purpose of respiration. In the present state of our knowledge, it were too much to assert that no other cause is capable of producing this ailment by direct influence; and so general is the belief that head affection is one of those causes which may operate by direct agency, that it is little short of heresy to doubt it. The truth of this doctrine I have already seen reason to call in question; but it is also vague and unsatisfactory. It is not very distinctly stated whether it is congestion, simple irritation, inflammation or pressure of the brain or its membranes, which produces the effect, or whether the same condition, be it spasm or be it palsy, obtains through both stages of the *maladie cérébrale*, as this head-affection of children has been well denominated by Cruveilhier; and, further, the doctrine affords no satisfactory explanation of the symptoms, even if true. It does not in the least explain the fact, why the par vagum should be affected to the exclusion of other nerves, having their origin in the same respiratory column or passing close to them; nor why, if the glottis be closed by a spasm, the superior laryngeal branch of that nerve should be affected to the exclusion of the inferior and of those other branches, which proceed from the same common trunk; nor why, if the closing of the glottis be the result of paralysis from pressure at the origin of the respiratory nerves, the recurrents should be exclusively influenced; and still more difficult is it to account for the transfer of morbid influence from one branch of a common trunk to another, in the course of the same malady, which the phenomena would imply. The stage of inflammation of the brain is commonly attended with convulsive movements; that of effusion by paralysis extending even to the sphincters; yet, in both, the crowing inspiration may occur. If this arise directly, not intermediately, from the cerebral affection, the closing of the glottis must in the inflammatory stage be convulsive from excitement of the superior laryngeal nerve, whilst the recurrent, retaining only its ordinary power, is unable to counteract the muscular spasm produced by the morbid excitement of its antagonist nerve; in the stage of pressure from effusion, when all the functions and faculties are torpid from paralysis, the same closing can only arise from a palsy of the recurrent, the superior laryngeal nerve still retaining its powers unimpaired. Both can scarcely be simultaneously affected; for the equal contraction of antagonist muscles, upon which these nerves are respectively distributed, would probably keep the chink in its medium state, which is that of permeability to air; whilst paralysis of both would, in conformity with the expe-

riment of Magendie, who annihilated all nervous influence in the four laryngeal branches of the par vagum by their division, cause the chink to be permanently open. Such transmutation of morbid influence from one nerve to another, or, what is infinitely more difficult to imagine, from one branch of a common trunk to another in the progress of the same disease, is all but inconceivable; and the improbabilities, therefore, of this opinion militate greatly against its reception. Still the opinion has maintained its ground, and has exercised great influence, nor would I denounce the treatment founded upon it as universally improper; for such a cerebral disease may be the original, though often indirect cause of the crowing inspiration, and the primary affection must be actively treated, or the patient will fall a victim to the complaint, either by general convulsions or its succeeding coma, or, sometimes, by the intermediate agency of the crowing inspiration, which is in such cases a secondary complaint. But the existence of this cerebral malady will be recognized by signs peculiarly its own, without reference to the croup-like inspiration, and the treatment will be wholly uninfluenced by its accidental combination with the laryngeal affection." 276.

This brings us to the end of the work—the Appendix, "ON THE GENERAL PATHOLOGY OF THE NERVES," being reserved for another analytical article in our next Number. We have presented as copious an analysis as any author or reader could desire—or fairly expect. We have allowed Dr. Ley to support his doctrine almost as freely as in his own book. We admit that the ingenious author has made out a strong case in favour of his theory—and, if we do not profess ourselves to be converts, it is because, as we before observed, we are unable to compel our faith or belief. Prejudice is more easily formed than eradicated. The few cases of this disease which we have witnessed, and one of which is on record, were nearly all attended by the "CARPO-PEDAL SPASM," which appellation we believe we were the first to give it. Now this association, which Dr. Ley admits as not very infrequent, shakes our confidence in the glandular pathology of the disease, and inclines us to look to other causes, and especially to IRRITATION of the gastro-intestinal nerves, the source of so many spasmodic (we hope the author will pardon the term) affections of distant parts, particularly in children, whose intestinal tube is almost the centre or focus of sensibility, irritability—we had almost said of VITALITY. A long experience and attentive observation have presented us so many examples of the strange and mysterious freaks which Nature plays in cases of gastro-intestinal irritation, both in the young and in the old, that we are not disinclined to include "LARYNGISMUS STRIDULUS" in the category. This impression is not lessened by the recollection of the many cases of strumous disease which we have witnessed, and where the cervical and other glands were developed, as it were, in proportion to the attenuation of all other parts of the body—and yet where no laryngismus stridulus was recognized.

But we will not urge any further objections, leaving it to time, and the investigation of future observers, to corroborate or refute the doctrine of our author. It would scarcely detract from the merit of the work, if the whole of Dr. Ley's hypothesis was proved to be an ingenious fiction of the imagination. The mine of facts and observations which he has laid open to his brethren, will prove an inexhaustible treasure, from which future authors will draw, with advantage, long after his and our bones shall have mouldered into dust!

Cases and Observations illustrative of Renal Disease, accompanied with the Secretion of Albuminous Urine. By *Dr. Bright.*

[Guy's Hospital Reports, No. 2.]

The importance of the subject, and the ability of the writer, demand a separate article for this report; and, on that account, we have placed it in our Review, instead of Periscopic department. It might be difficult to determine whether the disease in question has become more frequent of late years, or only been better observed and oftener detected. For our own parts, we think that the disease called "mottling," "white degeneration," "contraction," or "granulation," *is* of more common occurrence than formerly, and *is also* better understood, both as to symptoms and pathology. Dr. Bright, who has paid especial attention to this dangerous malady for ten or a dozen years past, is of opinion that 500 people fall victims to it every year in London alone. He thinks there is great reason to believe that the seeds of the disease are often early sown, and that intervals of apparent health produce a false feeling of security.

Hæmaturia is often a precursor of renal disease—and so is scarlatina. Intemperance, however, is its most common source—and exposure to cold the most usual exciting cause. Intemperance in youth generally lays so firm a foundation for the malady, as to bid defiance to remedies afterwards. The history of this disease and its symptoms are nearly as follow:—

"A child, or an adult, is affected with scarlatina, or some other acute disease; or has indulged in the intemperate use of ardent spirits for a series of months or years; he is exposed to some casual cause or habitual source of suppressed perspiration: he finds the secretion of his urine greatly increased, or he discovers that it is tinged with blood; or, without having made any such observation, he awakes in the morning with his face swollen, or his ankles puffy, or his hands œdematous. If he happen, in this condition, to fall under the care of a practitioner who suspects the nature of his disease, it is found, that already his urine contains a notable quantity of albumen: his pulse is full and hard, his skin dry, he has often headache, and sometimes a sense of weight or pain across the loins. Under treatment more or less active, or sometimes without any treatment, the more obvious and distressing of these symptoms disappear; the swelling, whether casual or constant, is no longer observed; the urine ceases to evince any admixture of red particles; and, according to the degree of importance which has been attached to these symptoms, they are gradually lost sight of, or are absolutely forgotten. Nevertheless, from time to time, the countenance becomes bloated; the skin is dry; headaches occur with unusual frequency; or the calls to micturition disturb the night's repose. After a time, the healthy colour of the countenance fades; a sense of weakness or pain in the loins increases; headaches, often accompanied by vomiting, add greatly to the general want of comfort; and a sense of lassitude, of weariness, and of depression, gradually steal over the bodily and mental frame. Again the assistance of medicine is sought. If the nature of the disease is suspected, the urine is carefully tested; and found, in almost every trial, to contain albumen, while the quantity of urea is gradually diminishing. If, in the attempt to give relief to the oppression of the system, blood is drawn, it is often buffed, or the serum is milky and opaque; and nice analysis will frequently detect a great deficiency

of albumen, and sometimes manifest indications of the presence of urea. If the disease is not suspected, the liver, the stomach, or the brain divide the care of the practitioner, sometimes drawing him away entirely from the more important seat of disease. The swelling increases and decreases; the mind grows cheerful, or is sad; the secretions of the kidney or the skin are augmented or diminished, sometimes in alternate ratio, sometimes without apparent relation. Again the patient is restored to tolerable health; again he enters on his active duties: or he is, perhaps, less fortunate;—the swelling increases, the urine becomes scanty, the powers of life seem to yield, the lungs become œdematous, and, in a state of asphyxia or coma, he sinks into the grave; or a sudden effusion of serum into the glottis closes the passages of the air, and brings on a more sudden dissolution. Should he, however, have resumed the avocations of life, he is usually subject to constant recurrence of his symptoms; or again, almost dismissing the recollection of his ailment, he is suddenly seized with an acute attack of pericarditis, or with a still more acute attack of peritonitis, which, without any renewed warning, deprives him, in eight and forty hours, of his life. Should he escape this danger likewise, other perils await him; his headaches have been observed to become more frequent; his stomach more deranged; his vision indistinct; his hearing depraved: he is suddenly seized with a convulsive fit, and becomes blind. He struggles through the attack; but again and again it returns; and before a day or a week has elapsed, worne out by convulsions, or overwhelmed by coma, the painful history of his disease is closed." 341.

Here a question may be asked, is the said derangement of kidney necessarily connected with the peculiar condition of urine described? After ten years' observation, Dr. B. thinks he may safely answer in the affirmative—although anomalies will sometimes occur. The cases which our author adduces will be found to bear upon, and illustrate many points in the history which has been sketched in the foregoing extract. We shall endeavour to condense the more important features of several of these cases.

Case 1. A physician, aged 42, who had lived freely, but not intemperately, applied to Dr. B., in the year 1832, with marked symptoms attendant on albuminous urine—his flesh wasting and strength failing. His legs were œdematous. These symptoms had continued for two years, and he had been treated for diabetes. The urine was highly albuminous. The decoction of pylora umbellata was prescribed; and, after some days, two grains of salicine thrice a day were also ordered. He improved a little under this treatment, with regulated diet, and proceeded to North America, where he had formerly resided some years. In October, 1833, he presented himself to Dr. B. in apparent good health. He had been more than a year in Canada, where his health improved. In England, however, some of his former symptoms returned.

"His legs began to swell, so that he was obliged always to wear bandages: his hands also swelled occasionally: he had great inability to sleep at night: suffered from vertigo: his urine was coagulable by heat, though it emitted a urinous smell: appetite good: tongue clean: pulse from 80 to 90: skin freely perspirable. He kept his bowels regular, by pills. He remained in tolerable health; but was always excessively low spirited, and suffered much from headache: he had constantly a slight tendency to anasarca, and his urine was always albuminous.

In the latter part of the summer of 1834, he again resolved, at all hazards, to

try the effect of revisiting America; and he seemed, to a certain degree, recruited by the voyage. But in the latter end of November, having exposed himself a good deal in shooting, he was attacked with hemiplegia; and in three weeks after, died apoplectic, on the 15th of December." 345.

In this case the precise disorder which occasioned the albuminous urine was not, of course, ascertained. Its existence was traced over a space of four years, during which he never could be said to have enjoyed perfect health, though with considerable intervals of amelioration.

Case 2. July 1835, a medical gentleman from the country, aged 33, consulted Dr. B. His countenance was pallid. He said he enjoyed good health till the age of twenty, when he became affected with dyspepsia, which had gradually increased. In 1826, he had the ulcerated sore throat of scarlatina, without rash. His urine was then as deep coloured as coffee. He believed his urine had been albuminous since that period.

"Six years ago he began to suffer from occasional pain in the back and region of the kidneys, rather more on the left than the right side; and he had wandering pains about the heart, which were considered to be neuralgic. The latter symptoms subsided, but the dull pain in the back continued; and he had since been subject to puffy œdematous swelling of the face, legs, and ankles. Four years ago he had an attack of catarrhal inflammation of the chest, which appeared to have rendered him very susceptible of atmospheric changes; and about a year and a half ago he wasted considerably. He had suffered, for the last fifteen years, from severe attacks of sick headache, with vomiting, which continued for several hours; and this had increased during the last few months. The fluid which was ejected from his stomach was excessively acid, and sometimes tinged with bile: the bowels were habitually costive. I understood that he has been temperate as regards drink, but irregular in his meals. I examined his urine carefully, found it of a light straw colour, very acid, and throwing down numerous flocculi of albumen by the application of a moderate degree of heat. He evidently saw that I considered his case one of a most serious character; and he consented to do any thing I would direct, consistently with his continuing to practise his profession. I enjoined upon him the greatest care in avoiding exposure to cold and chills; told him to clothe himself completely in flannel; to keep strictly to a milk diet; and to regulate his bowels with scammony or some simple purgative; and I prescribed powders of the uva ursi, soda, and compound ipecacuanha powder, to be taken thrice a day." 346.

Dr. B. saw him on the 1st October, of the same year, considerably improved; but the urine was still coagulable. He ascribed his improvement chiefly to a rigid adherence to milk diet, and aperients. Yet in eight weeks from this time he died.

"I learned, that about six weeks before his death he had suffered most severely from headache and vomiting; which was now accompanied by dimness of sight, or a kind of mistiness, as he described it; and a whizzing in his ears, which was not more on one side than on the other. During the last month, while he was still going about, he complained of an inability to direct his arms and legs, which affected the left rather than the right side. For the last fortnight he kept his bed; and during that time he had frequent twitchings of different muscles; and generally at night, when he fell asleep, was attacked with a convulsion, which almost raised him from his bed. On the fifth day before his death he had three attacks of epilepsy, and one or two on the following days: during the last two days of his life he lay in a comatose state." 347.

The body was carefully examined by Mr. Hilton. There was a diseased condition of the mucous membrane of the duodenum, advancing towards ulceration. "The kidneys presented minutely mottled degeneration in their secreting structure, as depicted by Dr. Bright in his medical reports; but neither of them was softened, nor much increased in size. The ureters and bladder were healthy." The heart was large and flabby. The walls of the left ventricle were hypertrophied, but flaccid—the fibres pale, and easily lacerable. There were several traces of disease in the head.

"On raising the dura mater carefully, there was a layer of coagulated blood recently effused, about the side of a half-crown, resting between the two layers of the arachnoid membrane; not firmly adherent to either, but more so to the arachnoid of the dura mater, corresponding to the external cranial depression where that membrane was flaccid. Arachnoid opaque and thickened (looking like wet, thin, white leather), from chronic inflammation over nearly the whole of the vertex on each side; rather more on the left; with some little serous effusion under the arachnoid. A small deposit of bone upon, or rather growth of bone from, the arachnoid, on the pia mater, somewhat larger than a pea, was observed under the loose portion of the dura mater, presenting a superior, nodulated, uneven surface. There were also several cartilaginous spots, but none larger than the section of a pea, all on the left hemisphere of the brain. A portion of the falx major, near its junction with the tentorium, was ossified to about the extent of a sixpence, with irregular edges. The pia mater was not adherent, except over the superior part of the left anterior cerebral lobe, where it was slightly so, and some patches of cineritious structure came off with it: and at this point, the convolutions were not so prominent as at the corresponding part on the right side." 350.

The following commentary of Dr. Bright on this melancholy case we shall give in his own words, as they cannot be abridged.

"The whole history of this case is most interesting; shewing, as it appears to do, the connexion of this disease, in the first place, with the scarlatina; presenting traces of it through its lengthened progress, attended by occasional indications in the obvious character of the urine, in the slight and often evanescent œdema of various parts, in the tendency to emaciation, in the returns of vomiting and severe headache, and, at last, in the more decided cerebral symptoms; which, after a succession of convulsive seizures, terminated in coma, when probably eight years, at least, had elapsed from the first commencement of the disease." 351.

CASE 3.—*Dec. 25th*, 1835. Dr. B. was hastily summoned to meet Dr. Prout, in the case of Mr. W. aged 17 years. He was found in bed, with his eyes half closed—his left arm paralytic, as also the left leg—countenance pale—tongue furred and dry—surface warm—complaining of pain in the head—acute sense of hearing. His urine was pale, acid, and very coagulable by heat. He now had a convulsive fit, during which the paralyzed members were violently agitated, while he cried out with pain. He was quite conscious. The paroxysm lasted only a few minutes, when he lapsed into his former state of tranquillity. When 12 years of age, he had an attack of hæmaturia, which had recurred several times, with copious flow of urine, and desire to pass it often. A small calculus had once passed. Dr. Prout saw him 18 months ago, when the urine was coagulable, in which condition it has remained. Three weeks ago he was much exposed to cold at a funeral, since which he has got worse.

" He was seen by Mr. Odling about ten days ago, who found that he had suffered more headache than usual: bowels constipated: tongue brown, and loaded. He was ordered leeches to the temples, took purgatives, and got so much better, that on Saturday the 19th he was occupied in some business, which required great exertion both of mind and body, and exposed him to the cold; and he found himself so much confused, that he retired to bed; and when he was found there, about nine o'clock, he was affected with a most intense headache, vomiting, and a total loss of sight. Mr. Odling, seeing him in this state, got a large number of leeches; but whilst he was in the act of applying them to his temples, a severe fit came on, of an apoplectic character, in which the patient's countenance became dark and suffused, and his breathing stertorous. He was bled freely from the arm; and this was repeated three times during the night; but he experienced two more fits, like the first. In the morning, Dr. Prout saw him, and ordered cupping from the loins; and whilst this was being done, a fit occurred. On the Tuesday, fits, assuming more the character of epilepsy, occurred; in which the left side, which had remained weak after the first fits, was convulsed. On Wednesday, the fits returned; but it was evident that the mind was unimpaired during the convulsion. On that night they were frequent; and on the following day not less than twenty occurred. On Friday the 25th, the day on which I was called, they had recurred at intervals of about an hour, and were rapidly increasing. At eight o'clock in the evening, he became quite insensible; but he lived, with frequent convulsions, till two o'clock on Saturday morning; thus lingering nearly a week from the first appearance of the severe cerebral disease; during the last five days of which time, it was necessary to draw off his water every eight hours." 353.

No examination was permitted; but there can be little doubt of the nature of the disease. The following case was communicated by Mr. Weatherfield, an intelligent surgeon of this metropolis.

Case 4. Mr. J. G. consulted the narrator in the month of December, 1830, for dyspepsia, accompanied by pyrosis. He was again seen in Sept. 1833, when a total change had taken place in the symptoms.

" He had for some time lost the dyspepsia and pyrosis; his appetite was good; and, to use his own words, he could digest any thing: but complained of pain and throbbing in his head, intolerable thirst, huskiness in the throat, swelling of the legs towards night, and of the face in the morning: his pulse was now hard: tongue covered with a creamy coat: urine very abundant. He was advised to be bled; but he neither submitted to that, nor pursued any plan of treatment steadily. He continued much in the same state, till February 1834; when the pain in the head became less frequent, but more severe, returning generally once a week, attended with distressing vomiting: the œdema of the face and extremities somewhat increased: there was now, also, some fluid in the cavity of the abdomen. Soon after this, he took a long journey into the country, where he underwent great fatigue, and suffered from a more severe attack of head affection and vomiting than before; which induced him to return to town, and consult Dr. Babington, which he did on the 26th of March. After a very careful and patient investigation of the case, Dr. Babington, having tested the urine, and finding it to contain albumen, declared it his opinion that the kidney was the seat of the disease. He was ordered to take alterative mercurials and tonics; and to be cupped over the region of the liver, where he complained of pain, increased upon pressure. The following week he saw Dr. Babington again; when he complained of noise in the left ear, and slight numbness of the right hand and foot: the pulse at this time was feeble. Dr. Babington, however, ordered blood to be taken away, if any aggravation of symptoms

should occur. On the morning of the 5th of April he was attacked with epilepsy; and a medical gentleman living near immediately bled him. The pulse rose wonderfully, and continued so strong as to induce us to repeat the bleeding the next day; which, together with purgatives, subdued the convulsions for a time. On the 11th of April, however, he was suddenly seized with another fit; which returned at longer or shorter intervals, until the following day, when he sunk.

Sectio Cadaveris. The membranes of the brain, particularly the pia mater and arachnoid, much thickened; more than two ounces of water in the ventricles; the brain being altogether firmer than usual: the septum lucidum thickened and tough: plexus choroides paler than usual.

The lungs were emphysematous; the air-cells much enlarged, and ruptured.

The heart rather larger than usual; the left ventricle somewhat thickened; and the semi-lunar valve slightly ossified: some water was found in the cavity of the chest.

All the abdominal viscera healthy, except the kidneys; which were much smaller than usual, of a grey and granulated structure." 355.

Case 5. Mr. P. aged 25, athletic, applied to Mr. Wheelwright on the 6th December, 1835, for dyspepsia, with dimness of sight. The symptoms being referred to bilious disorder, aperients, followed by bitter tonics, were administered. He got better, and returned to his employment, that of a plumber. He got cold on the top of a building, on the 21st January of the present year, and returned home ill, with a kind of convulsive fit. Mr. Wheelwright saw him at five o'clock in the morning, when he was totally blind—pulse quick and powerful—intense pain in the head. He was bled copiously, and a brisk purgative was given. The bleeding was repeated, and cupping was employed, as the headache continued. Dr. Babington saw him the following day, when considerable arterial action was still present. As he had lost 40 ounces of blood, it was determined to try the effects of mercury. In four or five days his vision was somewhat improved, and the headache relieved. Leeches and blisters were ordered. In four days more the mouth was affected. He was extremely drowsy, and this increased to coma, and ended fatally. The body was examined a few hours after death. About half an ounce of fluid was found in the ventricles of the brain, and some degree of ramollissement about the basis cerebri. The optic nerves were healthy, as were all the viscera of chest and abdomen, except the kidneys, the peritoneal and proper tunics of which were thickened and opake. When stripped off, the surface beneath was rough, and of a grey mottled appearance. The diseased structure was seen to extend throughout the substance of the organ on section. Both kidneys were equally affected. The urine had not been examined in this case, as there had been no tendency whatever to dropsy.

Case 6. This was a young woman, who had presented albuminous urine for five years. Her blood had been analysed and found to contain urea. Latterly her head became affected, and she had epileptic fits. Her complexion was pale, yet she seemed well nourished. She was walking about when seized with a fit which terminated her existence. On examination, the skull was found to be unusually thick, and there were one or two small exostoses on its inner surface. A copious effusion was found under the arachnoid, and the cineritious substance of the brain was injected. The

lining membrane of the ventricles was thickened. The viscera presented nothing very particular. The kidneys were small, rather granular on their surface, and of a firm dense texture.

Case 7. A young woman was admitted under Dr. B. with profuse general anasarca and coagulable urine. She had been chlorotic for some years, with irregular menstruation. Fifteen months previously to admission her legs began to swell, after catching cold. The urine was now exceedingly coagulable, and her headaches were intense—often attended by vomiting.

"This young woman remained under my care for many months, varying almost every week in a remarkable degree, and subject to repeated relapses of anasarca, which she almost always ascribed to some slight exposure, generally to the draught of an open window. She was kept on the mildest diet; chiefly milk, and beef-tea and arrow-root. The remedies employed were principally diaphoretics; amongst which, the warm-bath, the hip-bath, and Dover's powder were the most important. From the beginning of May to the beginning of September, I confined her entirely to her bed; and frequently obtained a very perspirable state of skin, sometimes almost in excess. This treatment was often suspended and varied, owing to the severe attacks of vomiting. After a time, the catamenia began to return with tolerable regularity. The flow of urine was often very abundant, amounting to four pints in the twenty-four hours, and varying somewhat in the extent of its albuminous qualities, but never quite free from albumen: and at length, the anasarcous swellings being reported as entirely gone, she became very desirous of returning home. I however detained her several days, till her mother had provided her with a flannel dress, to wear constantly close to the body; and then, with many precautions, she was to leave the hospital on the following day, Sept. 29: but that very night she died almost suddenly, having only complained in the evening of a severe pain in the loins." 362.

The brain was very soft. No fluid in the ventricles. The kidneys were larger than usual—of a pinkish-yellow colour, and injected—surface slightly speckled with opake white spots—tunics healthy, but pale. The ovaries were enlarged and round, and darkly injected. The uterus was lined with a thin layer of grumous blood.

We think the appearances in this case were not very satisfactory. There were more evidences of functional disorder than of organic disease in the kidneys.

Case 8. An Irishman, aged 50, who had been seven years in the navy, was admitted on the 3d Feb. 1835. He had considered himself well till within the last two years. He attributed his illness to exposure to wet and cold for a whole day. He drank a good deal of spirits on that day. On the next, he found his abdomen rather swollen—penis and scrotum œdematous—pain in the head. He has never since been well. He had been four times salivated, by medical men of "good name and repute."

"The present symptoms are, occasional pain and heaviness of the head, felt principally at night; mouth still under the influence of mercury; cheeks puffed; difficulty of breathing, especially whilst in the horizontal posture; cough, which is most urgent at night; some expectoration; sound of heart unnaturally diffused; palpitation on slightest exertion; abdomen considerably distended, and fluctuation distinct; penis and scrotum, together with both upper and lower extremities, œdematous; pupils dilated, but not insensible to light: vision in both

eyes has been imperfect for about eight days, so that he cannot recognize any one at the distance of four or five yards." 364.

We need not detail the treatment. He died on the 23d of the same month. No examination was allowed.

Case 9. H. M. aged 43, was admitted, on the 16th Dec. 1835, with general œdema, sallow countenance, and pale lips. He passed a large quantity of urine, highly coagulable. He had much cough and expectoration. He had been 23 years in the marines (a tailor), and lived intemperately; but generally enjoyed good health. A year ago he had acute rheumatism and dropsy; since which he had suffered from cough. On the 27th of the same month, he left the hospital without permission, and three days afterwards he died.

"We learnt that, on leaving the hospital, he walked home, beyond the town; had a single pint of porter; and expressed his intention of resuming his employment next day: but, in the evening he complained of pain in the head, and most intense and excruciating pain in the abdomen, which his sister-in-law said she could compare to nothing but labour-pains, rapidly succeeding each other; and he was at times delirious; he likewise suffered from excessive shivering and coldness; so that he had a large fire made, and sat before it; opening the blanket in which he was enveloped to admit the heat. This state of things continued more or less through the whole of the following day and night; and on the next day, about two o'clock, having for two hours before his death become apparently blind, he died; little more than forty-eight hours having then elapsed from the time when he left the hospital.

Sectio Cadaveris. The arachnoid was slightly opaque, particularly along the middle of the sulci of the convolutions; and there was rather more fluid than natural, both beneath it and in the ventricles. The lungs were healthy and crepitant, without adhesion to the pleuræ: the heart large and muscular, but the valves healthy. The abdomen contained a full pint and a half of serum, evidently the result of acute inflammation; it had nearly the consistence of very thin arrow-root or gum-water, opaque, but not puriform. The liver was quite healthy in its structure; but had an unnaturally light and opaque appearance, owing to a thickened condition of its peritoneum. The kidneys were diseased to the utmost degree: they adhered very strongly to their tunics; were lobulated in shape, large, and almost white, with a slight tinge of yellow. When cut into, they were almost cartilaginous in consistence, shewing the same perfectly white colour, with specks of yellow throughout the cortical part; the tubuli presenting a very strong contrast, by their deep red colour. Of these kidneys a very beautiful model was executed in wax by Mr. Town, and is deposited in the Museum." 366.

Case 10. This need not detain us long. It is contained in a single page of Dr. B.'s report. The patient, aged 21, was admitted with general anasarca, dingy urine, acid and coagulable—pain in the loins—skin hot and dry. He was confined to bed, and antimonials and Dover's powder administered. Cupped on the loins—and subsequently a seton inserted there. His stomach was peculiarly irritable. In the second week of the fourth month, from this time, he was seized with acute peritonitis, under which he sunk in three days.

The heart was large—lungs gorged—marks of ancient inflammation in the chest. There were marks of extensive peritonitis, and the abdomen contained a quantity of opake fluid. The kidneys were very large, and, though

decomposition had advanced, the diseased mottled condition was clearly perceptible.

"Nothing can be more striking than the similarity which is observable in all these cases. I am not aware of any disease in which the character is more completely preserved, or in which the symptoms more clearly mark a specific form of malady. In the first eight cases, the termination, as well as the progress of the disease, bore the most perfect resemblance; and the peculiar train of cerebral symptoms, by which their advanced stages have been attended, have little analogy, when taken as a whole, with the symptoms of any other cerebral affection. The two last cases differ from the rest only in their mode of termination; and I have related them as the two most recent illustrations of a very frequent result of the disease.

Of the insidious nature of this malady, and its fatal tendency, these cases afford a pretty convincing proof: and the fact, that so many of these have come within my own observation in a limited time, would be tolerable evidence of the extreme frequency of the disease. Yet the cases I have now detailed, but more especially the many more which the length of the present communication obliges me to defer, are chiefly such as I have, without any intention of publication, chanced to enter in my note-book, and form but a small portion of those which I have seen: but, in order to obtain a more accurate idea of the actual prevalence of the disease, it is necessary to have recourse to another species of evidence; and accordingly, in the Winter of 1828-9, I instituted a series of experiments, by taking the patients promiscuously, as they lay in the wards, and trying the effects of heat upon the urine of each, and at the same time employing occasionally other re-agents. The whole number I took amounted to 130; out of which no less than eighteen proved to have urine decidedly coagulable by heat; and in twelve more, traces of albumen were found: giving, therefore, an average of at least one in six, if not one in four of the whole number." 368.

In the year 1832, our authors's friends, Dr. Barlow and Mr. Tweedie, made a more extensive range of experiments on nearly 300 individuals; and the result was, that above 1 in 11 were decidedly affected with the disease. In the year 1835, Mr. John Anderson, Dr. Bright's pupil, made a similar experiment on 141 patients, in which the proportion of cases of albuminous urine were above 1 in 6.

"The average of cases affected with the disease under consideration varies much, as might be expected, in different trials; and some explanations, arising from the experiments of Dr. Barlow, of which I have just spoken, will render it highly probable that the average I had taken, amounting to one in six, went beyond the reality: but, with every deduction, it still remains an incontrovertible fact, that the disease in its various stages, from its earliest functional derangement to the confirmed organic malady, is one of the most frequent, as well as of most fatal occurrence; and I think I am fully borne out in the estimate, which I made at the commencement of this paper, that not less than 500 deaths annually occur in this metropolis, from this single disease." 370.

In the treatment of this formidable disease in the early periods of its attacks, Dr. B. looks to the circumstances with which it is most frequently connected, viz. the suppression of perspiration, and the consequent general inflammatory condition—the most important of all others. By the early removal of these, Dr. B. thinks the immediate danger may be guarded against. Early bleeding is, of course, a paramount remedy; but Dr. B. doubts whether, by the most judicious treatment, a liability to relapse can be obliterated, or the morbid tendency overcome.

"With a view to keeping up the action of the skin, I have been very careful in pointing out to those who have not been confined by the disease, the necessity of wearing an inner dress of flannel at all times. I have suggested the propriety of a residence in some more agreeable climate; but I have never had an opportunity of giving a fair trial to this measure; the disease being, unfortunately, most apt to occur in those who are least able to submit to the absence from business, and the expense incident to a residence abroad. In a case which I have related above, I have little doubt that residence in a more northern climate, adopted by the patient without consultation, was instrumental, aided by imprudent exposure, in hastening the fatal result; and I feel confident that, in more than one case now under my care, the bad consequences of the disease are kept at bay by rigid adherence to the use of flannel dresses. Perhaps, to give full effect to a change of climate, some decidedly southern abode should be chosen; and a residence in one of the more healthy of the West India islands, as St. Vincent's, would probably be beneficial.

With regard to the abstraction of blood as a remedial means, it is chiefly in the commencement of the disease that it is decidedly beneficial; and at that time, combined with diaphoretics and strict confinement to bed, general bleeding, freely practised and quickly repeated, is, I believe, most valuable; I have frequently employed it at much later periods, and with temporary advantage. But when we call to mind the constant loss of albuminous matter which the system is sustaining by the kidneys, and the peculiar pallid hue which the patient usually assumes, we shall pause before we venture to afford a temporary alleviation, at a still further expense of the more nutritious and stimulating portions of the blood. Yet there is no doubt that, even in the most advanced stages, a strong tendency to inflammatory action, particularly of the peritoneum, often displays itself; and, under these circumstances, nothing but active depletion can meet the emergencies of the case. When the head is affected with pain, throbbing, or giddiness, and the senses are becoming less acute, the indication is by no means so obvious; and, although we may believe that a slow inflammatory process has often been going on, yet this is in many cases, greatly to be doubted, as the symptoms, and many of the appearances after death, admit of a ready solution, from the state of debility and anæmia to which the patient is reduced. Cupping from the nape of the neck generally relieves the symptoms for a time; but blisters are less likely to prove injurious; and perhaps a seton would be found advantageous, though of this I have no experience. When the loins are decidedly affected with uneasiness, or when pressure on the kidneys excites pain, I have known the successive daily application of a few leeches attended by the best results, and I have occasionally introduced a seton." 375.

In several cases which we have treated in private practice, the expression of the patient, after every discharge of urine, has been this:—"*I feel as if I discharged so much of my life, with every evacuation of my water.*"

Dr. B. is favourable to puncture of the extremities, when the serous accumulation presses. We have often found it to give great temporary relief.

"The mode which has generally appeared to me most eligible, is the introduction of a needle into the cellular membrane, giving it a turn or two laterally, so as to break down a few of the meshes, and thus prevent the small orifice from closing too quickly. Three or four such punctures, made in the calf of the leg, or the thick part of the thigh, will give egress to a large quantity of serum, and will often continue to discharge for three or four days. I once collected in this way, in the course of four hours, above forty-four ounces of serum; and the puncture continued to flow, affording the greatest relief. The operation should not be repeated for some days, or the part should be varied, as the punctures sometimes inflame even after they have appeared to heal." 374.

Dr. B. in accordance with Dr. Barlow and Dr. Osborne, is averse to the exhibition of mercury in cases of albuminous urine. Yet Dr. Pritchard, of Bristol, certainly one of the most talented physicians of our own days, has advocated a moderate use of this remedy. Dr. Bright, however, is inclined to the disuse of this remedy as a general rule. Perhaps he is right. We should never think of giving mercury merely for the disease of the kidney, whether functional or structural; but, when we consider how many other functions are disturbed, besides those of the kidneys and skin—and how useful are mild alterative doses of mercury in restoring or improving these functions, we may well hesitate in proscribing the remedy in question. The judicious practitioner will often find it useful and necessary to obviate collateral or adventitious symptoms, when he finds that he has little power over the paramount disease. He thus mitigates sufferings which he is unable to conquer—he inspires hope and confidence in his patient—and strews the way to the grave with flowers instead of thorns.

"It may, indeed, be fairly urged that, with such a list of fatal results before us, in which various remedies have been used, it is unjust to fix upon mercury the peculiar reproach of failure. I can only answer that, in general, it has appeared to me, that those who, in the confirmed forms of this renal affection, have abstained from mercury, have broken down more slowly under the disease, than those who have taken it to any extent, more particularly if they have persisted till its constitutional effects have completely manifested themselves. I believe, however, that in the very early stages of the acute renal disease, mercury, given in combination with opium and antimony, and associated with bleeding, may be a useful means of reducing the inflammatory action: and I am still by no means inclined to despair of our arriving at the means of administering very minute doses of this powerful remedy, in such combinations as to lead, by long continuance, to some degree of change in the morbid structure which has taken place in all the advanced cases; or to act more decidedly in promoting the absorption of the morbid deposit, if we shall ever arrive at a knowledge of the probable period when the morbid change is in its truly incipient state. I have hoped, in iodine and in the hydriodate of potash, to find remedies adapted to the furtherance of the same object; but I cannot say that, as yet, my experience has borne out these hopes." 377.

Purgatives have produced decidedly good effects in some cases—particularly in reducing the anasarca. The elaterium, under careful management, has been found very beneficial in our author's hands. We are rather surprised at the mention of "grain doses" of this active medicine. Our readers are aware that we have frequently employed it in dropsical affections; but we would hardly dare to give more than the eighth of a grain—generally only the sixteenth part of a grain, for a dose. Dr. B. however, seems to incline to fractional parts of a grain, rather than a grain.

"With regard to diuretics, I have generally wished to abstain from all, except digitalis; and yet I have not unfrequently found myself almost forced to their adoption, when other remedies have failed, in the hope of restoring, for a time, the secretion of the kidney, which has been so greatly reduced as to threaten an entire suppression. I look upon this class of remedies, however, in the light of a necessary evil in such cases; and do not feel authorized in recommending their employment. Very generally, diuretics seem obviously uncalled for, the secretion being already in excess.

Much as may be effected by active remedies in the acute state of the disease; in its chronic and advanced stages, particularly when any change may be sup-

posed to have slowly taken place in the structure of the kidneys, our hopes must rest upon such remedies as produce a more gradual effect, and whose action is therefore not so obvious, and perhaps not so certain, but frequently, I have no hesitation in saying, most salutary. These remedies must vary according to a variety of circumstances, and must be persevered in for almost an indefinite length of time. Amongst these may be mentioned, small doses of carbonate of soda; uva ursi, in its different preparations; small doses of antimonial remedies; and all these, combined with some anodyne, as the conium, or, still better, the compound ipecacuanha powder. The very careful exhibition of the vinum ferri, the tinct. ferri muriatis, or some other chalybeate preparation, has sometimes appeared to do good for a time, but has not generally been admissible for a continuance. Strict attention to the state of the bowels is also indispensable; and becomes the more necessary, because their function is very apt to be interfered with, and their action to become irregular. Sometimes there is a strong tendency to diarrhœa, and occasionally quite an opposite condition exists; some mild combination, calculated to act gently and regularly, should be used; but the exact form will depend very much on our experience in the individual case, as the object should be to produce an action as nearly like the natural as possible, all unnecessary irritation being avoided." 378.

Diet is not to be neglected—the great rule being, to avoid every thing that deranges the stomach. Flannel should be worn next the skin, and all chills and damp avoided.

Dr. Bright has appended a tabular view of the morbid appearances in 100 cases connected with albuminous urine, to which we must refer our readers. In most of these cases, the renal affection was the prominent feature of the disease; and, in all, the granular structure of the kidney was detected after death. The analytical table alluded to discloses a large number of other organic diseases, besides those of the kidney. We are not at liberty, therefore, to assume that the renal disease was the primary one in all cases. Our author, however, is "inclined to believe that the kidney, is the chief promoter of the other derangements." Although the function is generally, it is by no means invariably, interrupted in this disease. "In almost every case, the first impression which brings on the anasarca, is suppression of perspiration." In this terrible disease, the blood undergoes serious changes. It becomes impoverished, and daily robbed of a portion of its most nutrient constituents. From the defective action of the kidneys, too, urea is frequently found in the blood. The principal lesions, however, display themselves in the organs of circulation and respiration, and in the serous membranes. The heart and the lungs, the pleura, the arachnoid, and the peritoneum have, in a large majority of cases, shewn marks of disease. Of all structures, the pleura has been most frequently affected.

"The deviations from health in the heart are well worthy of observation: they have been so frequent, as to shew a most important and intimate connexion with the disease of which we are treating; while, at the same time, there have been twenty-seven cases in which no disease could be detected; and six others, which, from not having been noted, lead to the belief, that no important deviation from the normal state existed. The obvious structural changes in the heart have consisted chiefly of hypertrophy, with or without valvular disease: and what is most striking, out of fifty-two cases of hypertrophy, no valvular disease whatsoever could be detected in thirty-four: but in eleven of these thirty-four, more or less disease existed in the coats of the aorta; still, however, leaving twenty-two without any probable organic cause for the marked hypertrophy generally affecting the left ventricle. This naturally leads us to look for some less local

cause, for the unusual efforts to which the heart has been impelled: and the two most ready solutions appear to be, either that the altered quality of the blood affords irregular and unwonted stimulus to the organ immediately; or, that it so affects the minute and capillary circulation, as to render greater action necessary to force the blood through the distant sub-divisions of the vascular system. The valves chiefly affected have been the semilunar valves of the aorta and the mitral; and in three cases, the tricuspid has been somewhat deranged. In three cases, likewise, the disease of the valves has been unattended by any hypertrophy of the heart." 397.

The principal diseases of the lungs have been œdema and bronchitis. The liver and abdominal organs generally appear to escape with wonderful immunity.

"The foregoing table likewise affords an instructive average of the immediate causes of death in this disease. I have been able to trace the circumstances connected with the conclusion of life in seventy cases; and find, that no less than thirty out of these seventy have died of well-marked symptoms of cerebral derangements, noted under the titles of 'apoplexy,' 'coma,' 'convulsion,' and 'epilepsy.' Eight others have died suddenly. In eight cases, the obstructed condition of the lungs has been the immediate cause of death; and in three, the effusion into the chest has hastened the dissolution. Next to head affections, the most prevalent diseases have been inflammatory attacks in the serous membranes; amongst which are five well marked cases of peritonitis, three of pericarditis, one or two of pleuritis. Diarrhœa and other exhausting diseases have carried off several; and in every case, except two or three, the death appears to have been the result, not of casual disease, but of such events as may be said strictly to belong to the condition of the kidney of which we have been treating." 400.

One other circumstance remains to be noted. In 74 cases the age has been recorded. Four only survived the age of 60. Thirteen had passed the 50th year. Twenty-one died between the age of 40 and 50. Sixteen passed the age of 30, and 19 under that age. The larger proportion, therefore, died before they had attained the meridian of life.

We have now given an extended and minute analysis of this highly valuable paper in the "Guy's Hospital Reports"—a work to which we wish every possible success—as well as to its individual contributors. To Dr. Bright the profession is under great obligations. He has not attempted to dazzle us with brilliant theories, nor astonish us by new and successful remedies. By patient observation and careful induction, he is slowly but certainly treading the path to fame and fortune. To such men as Dr. Bright it is the duty—and we will add, the pleasure of the reviewer to do homage, and award praise. To the petulant, the conceited, the shallow-pated author, criticism ought, and, as far as we are concerned, *will* apply the rod of censure, whenever it is judged necessary and proper.

P. S. We ought to have observed that there is appended to Dr. Bright's paper, a short notice from Dr. Barlow, of Bath, promising "remarks on certain specimens of urine imitating albuminous urine"—and also a short extract from a recent work of Mr. Rees—which will come in more appropriately on a future occasion.

PRINCIPLES AND PRACTICE OF OBSTETRIC MEDICINE, &c. &c. By Dr. *Davis*. Parts XXIV. and XXV.

FEW elementary works have come under our notice containing so much original matter as this of Dr. Davis;—and it is on this account that we are tempted, from time to time, to extract valuable matters from its pages. In a former number we gave an account of that dreadful and disgusting complaint—NYMPHOMANIA—we now proceed to other uterine affections—less frightful, but much more common than the one in question.

Malposition. The principal malpositions of the unimpregnated uterus are prolapsion, anteversion, and extra-abdominal protrusion. Prolapse is by far the most frequent. To express the three stages or degrees of uterine subsidence, Dr. D. applies the term DILAPSION to the first stage, or simple bearing-down of the womb on an inferior portion of the vagina:—PROLAPSION to the second stage, when part of the uterus is engaged within the vaginal orifice—and PROCIDENTIA to the third, when the entire uterus is protruded out of the pelvic cavity, carrying with it a part or the whole of the vagina inverted.

1. *First Stage, or Dilapsion.* In this, the uterus descends two or three inches below its natural level, so as to press upon and annoy the vaginal parietes. The effects are, a sense of inconvenience and irritation in the vagina—an actual shortening of the vaginal tube—a leucorrhœal discharge—impeded or painful micturition—sometimes tenesmus.

2. *Prolapsion.* Here the vaginal portion of the uterus may be seen to project through the os externum, and make its appearance within or even beyond the level of the labia majora.

"The womb in this case occupies the inferior part of the cavity and an anterior portion of the outlet of the pelvis; and its body is almost every where invested by a double covering of vaginal structure; viz. first by the superior portion of it, with the extremity of which it is immediately adherent, and which it therefore cannot fail to take along with it, reflected and inverted towards the outlet of the pelvis; and secondly, by so much of its middle and inferior portions as may remain unreflected, and continue to retain their accustomed relations to the parietes of the pelvis at and near its outlet, and to the tissues naturally connected with the lower part of the pelvic cavity." 522.

To the symptoms before-mentioned, are now added dragging pains at the groins—aching pain in the back, in the sacral, and vesical regions—sometimes in the thighs. The recumbent posture gives relief to these symptoms.

3. The PROCIDENTIA, or complete prolapse, need not be described, as it is visible to the naked eye.

The *proximate* cause of these different degrees, the author considers to be a reduced power of the suspensory ligaments, generally accompanied by a relaxed state of the vaginal parietes.* The predisposing causes depend on ori-

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* It will be seen in next article, that Dr. Hamilton, of Edinburgh, differs from Dr. D. on this point.—EDS.

ginal slenderness and delicacy of the ligamentous and membranous tissues destined for suspension of the uterus—feeble health—many puerperal trials.

Occasional Causes. In nine cases out of ten, prolapsus uteri is an early consequence of the puerperal state, generally from getting up too soon, and resuming her wonted avocations after parturition. Several excellent illustrations are given by the author from his own practice or that of others. Next to these causes are prolapsions and protrusions of the uterus, *during gestation*, imputable to the weight of the womb in that state, and before quickening.

On the diagnosis of the different stages, the author descants very fully; but we must refer to the work itself on this point, with the exception of the following case.

"A considerable protrusion of the rectum was once mistaken for a case of procidentia with inversion of the uterus. The tumour first presented itself contemporaneously with the birth of a large child. The portion of protruded intestine was of such a magnitude and so tensely distended, as to have had the effect of concealing all the passages from the pelvis. The author, however, soon learnt that the after-birth had not been removed, and he found the placental portion of the umbilical cord prolapsing from between the person of the patient anteriorly and the mass of inverted intestine-looking substance which occupied the space, as already described, between the nates and the superior parts of the thighs. The umbilical cord was firmly taken hold of by the left hand, whilst the right was gradually and very cautiously carried up along it into the vagina, which was found widely developed and empty. At that moment the placenta could not be reached without causing more pressure to be made upon the tumour than might be convenient, or was at all necessary. There was no discharge of blood, and the uterus could be distinctly recognised through the parietes of the hypogastrium. These facts went incontestably to prove that the placenta was still attached to the uterus, and that the uterus itself occupied its proper situation, under its then circumstances, within the abdominal and pelvic cavities. In its feel and form, and character of tissue, the protruded body furnished unequivocal proofs of its proper nature and source; to the latter of which it was indeed in a few minutes very satisfactorily traced; and in about half an hour afterwards it was equally satisfactorily reduced." 548.

Treatment of Descents of the Uterus. Here, more perhaps than in any other complaint, prevention is better than cure. The causes, in nine cases out of ten, are, the too early resumption of ordinary occupations after puerperal confinements.

"The uterus often contracts in the course of a few hours after delivery to a volume sufficiently small to admit of its easy delapsion into the pelvic cavity, provided the patient were allowed or encouraged to assume positions which might favour such a descent; whereas, at that early period, little or no resistance could be expected to be opposed to such a tendency by reason of the state of extreme relaxation and development both of the uterine ligaments and of the parietes of the vagina. Experience therefore has long established the propriety, and indeed the necessity, of causing women, during the period in question, LITERALLY TO LIE IN; that is, to use, more or less exclusively, at that time, the recumbent position, and also to take the benefit of that position within doors, or perhaps more expressly within their own chambers." 548.

There is no precise measure of time for the allotment of this duty. The uterus is not supposed to recover its proper size and weight, in less than six

weeks after delivery. But the suspensory ligaments and other structures by which the uterus is connected with the pelvis, generally recover their tone in half that time or less. Strict confinement to bed may usually be limited to the first eight or ten days after confinement—the remainder of the three weeks being allotted to very gentle movements in the patient's chambers.

The indications of cure are three—reduction of the descent, if necessary, by manual assistance—retention of the organ in its proper place—attention to the general health. In many incipient cases, descents of the uterus are remedied by attention to the general health alone, or with some topical applications. Active tonics, preceded or accompanied by alteratives, are the best means to be employed. Where the vagina is in a relaxed state, astringent injections are useful.

When, however, the prolapsion is chronic, the pessary is almost inevitable. Dr. D. thinks that the sponge-pessary is the best, and gives a long description of an ingenious contrivance for that purpose, which would not be understood without the plates. Where the sponge cannot be managed, the next best substitute is the ring pessary. The best are those which are made of light wood.

Our author, after a long enumeration of the various kinds of pessaries that have been invented, proceeds to a consideration of the third and last degree of descent—viz. that of its reduction. When this form of malposition is only partial, the prolapsed organ frequently retires into the pelvis spontaneously, in the horizontal posture—or, if not, the patient herself is able to effect the reduction with her own fingers. A cloud of cases are next cited by Dr. Davis, from old and recent writings which must be consulted in the work itself.

A PRACTICAL TREATISE ON MIDWIFERY. By *Robert Collins*, M.D. Octavo, pp. 526. London, 1835.

PRACTICAL OBSERVATIONS ON VARIOUS SUBJECTS RELATING TO MIDWIFERY. By *James Hamilton*, M.D. F.R.S.E. Octavo, pp. 317. Edinburgh, 1836.

OBSERVATIONS ON THE PROPRIETY OF INDUCING PREMATURE LABOUR IN PREGNANCY, COMPLICATED WITH TUMOR. By Dr. *Ashwell*.

[Guy's Hospital Reports.]

IT has rarely fallen to our lot, as medical reviewers, to meet with a work which is so full of sound practical instruction, and, at the same time, so guiltless of unnecessary amplification, as this Treatise by Dr. Collins. It contains a faithful record of what the author witnessed and what he did during the seven years that he was attached to the Dublin Lying-in Hospital—certainly one of the noblest and best-managed charitable institutions of our land—as chief physician or master. During that period 16,414 women gave birth to 16,654 children. The particulars of each case, in reference to the age of the patients, the duration and character of the

labour, the occurrence or not of casualties, the sex of the infant, and so forth, were carefully noted; and the immense mass of authentic data thus accumulated has been faithfully grouped and arranged under different sections by the enlightened author. There is no theory, or speculative reasonings admitted into the work. It is a simple registry of well-attested occurrences, prefixed or appended to which are the more important deductions which naturally flow from the premises, and a few practical instructions, all of which bear the stamp of a most cautious and diligent observation. If the precepts and practice of such a physician as Dr. Collins were more generally known and followed, we are confident that not only many a woman might be spared, in the most trying time of Nature's suffering, hours and days of pain and misery, but that scores of valuable lives might be saved. The kind and affectionate regard for the welfare of his patients which Dr. Collins expresses on all occasions is as creditable to his feelings as his admirable instructions are to the excellence of his judgment.

And certainly no department of our profession requires so much the union of a good heart and a clever head as that of midwifery.

Like every experienced practitioner, Dr. Collins deprecates, above all things, any hurry or premature interference in the management of labours, and he is right in tracing many of the distressing accidents, to which consulting accoucheurs are so frequently called, to the rashness and meddling bustle of the young and over-officious. His motto may be truly said to be "nec temere, nec timide." One leading object of his work is to inculcate the extreme danger to the patient, and the mortifying distress to the accoucheur himself of a too hasty adoption of manual or instrumental assistance in tedious and difficult labours. Some may possibly be of opinion that our author is rather too much disposed to sacrifice the life of the infant to the welfare of the parent, and we are ready to admit that sometimes he recommends the employment of the perforator and crotchet, when other physicians might be inclined to use the forceps or attempt to turn the child. Independently, however, of the perfect justifiableness and propriety of the principle alluded to, (and we do not hesitate to avow that as for ourselves we should always act upon it,) it may be very fairly presumed that small indeed is the number of children saved by the opposite course of treatment, such as is pursued on the Continent where the mortality among parturient women is well known to be so much greater than in this country. Numerous are the cases, as we shall shew in the sequel, where the safety of the mother has been most grievously endangered for the purpose of saving her offspring, and, after all, the child when born has been found not only *dead*, but absolutely *putrid*. Such a mistake may be generally avoided in the present day, at least by an accoucheur who has made himself practically acquainted with obstetrical auscultation. On many occasions the practice must depend on the results of an accurate stethoscopic examination. If the child is ascertained to be dead, the physician need have no scruple in using the perforator, whenever not to say the absolute safety, but the welfare and comfort only of the parent imperatively require a speedy termination of the labour. Dr. Collins makes allusion to the important treatise on obstetrical auscultation, published a few years ago by his former assistant, and present successor Dr. Evory Kennedy. We have reason to believe that the copious analytic review which we gave of that work two years ago, has

greatly contributed to a widely diffused knowledge of its important contents.

In the following pages we propose to lay before our readers a condensed and accurate summary of the leading facts and doctrines contained in Dr. Collins' Practical Treatise.

We trust, however, that this notice will not supersede a direct appeal to the work itself. It ought to be perused, or rather studied by every medical man, who engages in the practice of midwifery, and to the public lecturer, the copious and accurate tables with which it abounds, will greatly enhance its value.

After we had written our review of Dr. Collins' Treatise, we received the observations recently published by Dr. Hamilton, the present distinguished Professor of Midwifery in the University of Edinburgh. The subjects treated in this volume are prolapsus, and polypous excrescence of the uterus, enlargement of the ovary, the signs and duration of human pregnancy, and the management of the three stages of labour.

It will be useful shortly to discuss the author's sentiments on some of these topics; what relates to the management of labour we shall incorporate in our analysis of Dr. Collins' work.

Prolapsus of the Uterus. Dr. H. finds fault with almost all obstetrical writers for their attributing prolapsus of the uterus to a relaxation of the ligaments which support it. In every case of prolapsus he says that "the vagina, or bladder, or rectum, or muscles lining the pelvis, or filling up its outlet, are debilitated or lacerated, and that the relaxation of the uterine ligaments is the effect of the prolapsus and not the cause." He condemns the practice of confining patients to the horizontal position, which is apt to injure the general health, and to increase the relaxation of the natural supports of the womb; he regards astringent injections as worse than useless; and the following very lucid objections are urged against the employment of pessaries: they act only as palliatives; they irritate the vagina and keep up a mucous discharge; they make injurious pressure on the contents of the pelvis; they are apt to become incrusted with a calcareous matter, if not frequently taken out and cleaned; and lastly, "they subject the patient to a charge of the medical attendant for life!!" We shall not mention a most ingenious method of curing prolapsus uteri once suggested but afterwards abandoned by the Professor, and which consisted in endeavouring to excite an adhesive inflammation of the vagina, so as to agglutinate its opposing surfaces; nor need we describe the particulars of a case, in which a pessary made its way into the rectum, and the result of which case finally determined him to banish pessaries for ever from his practice! The only instrument which Dr. Hamilton has used for a number of years past, is either a strong T bandage, or, in more serious degrees of the disease, a circular metallic belt, like that of the common truss, provided with a cross or perpendicular strap, and to this strap is attached a cushion stuffed with horse-hair, about six inches in length by three in breadth, and of a thickness proportionate to the degree of relaxation, and therefore of the support required.

"This bandage is to be worn whenever the patient is out of bed, as long as any symptom of the disease is perceived. It effectually relieves the unpleasant

feelings, while it enables the patient to take walking exercise, which is so essentially necessary to the relief or cure of the disease." 29.

By this simple means, in conjunction with the use of cold bathing, and of appropriate constitutional treatment, Dr. H. has for many years past quite superseded the employment of pessaries.

Enlargements of the Ovary. Dr. Hamilton recognizes six varieties of ovarian enlargement; viz. a fibrous texture without any cavity, constituting a parabysma—an accumulation of fluid within the proper coat of the ovary —an accumulation of fluid, of different degrees of consistence, in cysts or sacs—a collection of hydatids, of various sizes—a complication of fatty tumors with hydatids; and, lastly, indurations like scirrhosities (we may add, medullary or cerebriform sarcoma), with cysts or hydatids.

The diagnosis of ovarian enlargement is, it is well known, seldom possible in the early stage of the disease, and, even in the more advanced, it is often extremely difficult. Not to mention pregnancy and ascites* among the states which have been confounded with it, Dr. H. informs us that he has met with several cases, in which tubercles of the mesentery or of the peritoneum, scirrhosity of the pylorus or of the caput coli, and even collections of indurated fæces in that portion of the intestinal canal, have simulated all the appearances of ovarian disease, and have misled the most experienced physicians. In reference to a case, where it was supposed that the patient was suffering from an extra-uterine enlargement, Dr. H. states:

"He was assured that the head and chest of the infant could be plainly distinguished, but that the limbs could not be felt. On examination, he found a large indurated tumour, very much of the shape which had been described, situated in the right iliac region, and reaching as low as the groin. It was exquisitely painful to the touch, and the poor woman appeared in the last stage of marasmus. He had no doubt that it was a diseased ovary, and that the sufferings of the patient admitted only of palliatives.

Death relieved the poor woman in the course of a few days, and it was then found, to the great surprise of those assembled to witness the dissection, that the disease was scirrhosity of the pylorus of great magnitude, and which had actually fallen down as low as the groin." 80.

Some forms of ovarian enlargement, even when the disease has existed long, neither induce any irregularity of the catamenial secretion, nor prevent impregnation.† Dr. H. has known more than one case, where the

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* Dr. H. asserts that he is able to distinguish unequivocally ovarian from ascitic dropsy after paracentesis, by the following signs: "the peculiar appearance of the fluid, which in dropsy of the ovarium is commonly amber-coloured, and of the consistence of melted calf's-foot jelly, but more particularly the collapsed sac, distinctly perceivable on the day after tapping, like the contracted uterus on the day after delivery, afford certain evidence of dropsy of the ovarium." On other subjects, as well as on this, our author's language is far too peremptory, and, if unreservedly believed, might mislead an inexperienced practitioner. Dr. H. has surely the bump of self-esteem very large, and that of caution, so characteristic, it is said, of Caledonian crania, of passing small dimensions.

† Dr. Ashwell makes the same remark in reference to tumors growing from

ovary was (or presumed to be) enlarged considerably during the early period of gestation, and the tumor quite disappeared after delivery.

The treatment of ovarian enlargements is necessarily, from the obscurity of their diagnosis, and the impossibility of determining their structure, unsatisfactory, and in most cases of no avail. Our author, however, assures us that, by a long-continued use of the following means, he has frequently succeeded in effecting a cure :—He recommends that moderate and equable pressure of the abdomen be made with a bandage; that the enlarged part be subjected twice a-day to percussion ;* that a course of small doses of muriate of lime (a drachm twice a-day of a mixture of seven parts of the solution of the muriate, and one of tincture of columba) be continued for at least several months, and that the patient should use daily the warm bath, and take regular exercise in the open air when the weather permits. In some cases, the Harrowgate waters, the muriated tincture of iron, the use of the conium maculatum, internally as well as externally as a cataplasm, (made of one part of the leaves, and two of linseed meal), and fomentations of the abdomen for an hour, evening and morning, with a strong decoction of the common groundsel, Senecio vulgaris (a plant formerly in high estimation, and now far too much neglected), have, in Dr. Hamilton's practice, seemed to dissipate the ovarian swelling. In conclusion we need scarcely say, that so experienced and judicious a physician as Dr. H. condemns all surgical attempts to effect a radical cure of the disease by injection, by seton, or by the still more unjustifiable operation of excision.

The leading object of Dr. Ashwell's paper, is to point out the propriety of inducing premature labour (in the sixth or seventh month), in cases where pregnancy is complicated with any large tumor in the abdomen or pelvis, whether it be connected with the uterus itself, or with the ovary, fallopian tube, or other viscus. The severe pressure and contusion, to which such tumors are exposed from the unyielding gravid uterus in the latter months of pregnancy, are apt to excite them to rapid increase of size and to changes of structure, which generally compromise the safety of the mother.

From the subject of enlargements of the ovary, Dr. H. passes to that of the *signs and duration of human pregnancy*. It is not our intention to discuss these topics at any length, having within the last year or two devoted more than one ample article to their illustration; but as our readers may naturally be anxious to be made acquainted with the sentiments of our author, than whom perhaps none has had a wider experience in obstetrical practice, and whose observations must therefore necessarily influence the belief of a great mass of those who will peruse his book, or at least our review of it, we think it right to submit them to their notice.

It would have been pleasing to us to have been able, in the discharge of our duty as faithful critics of the medical press, to approve and sanction these

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the uterus itself; often, "menstruation is almost as regularly performed as when the uterus is not structurally diseased."

* The percussion may be made either with the fingers, or with an instrument contrived for the purpose by Dr. H. and which consists of five metallic balls, imitating the points of the fingers, affixed to as many rods which spring from the handle.

sentiments; but this we cannot conscientiously do, despite the high authority of the Professor's name. Throughout both chapters, there is so much of unproved and dogmatical assertion—of self-confident and overweening prejudice, and of unfair, nay almost ungenerous incredulity of the statements and observations of former writers, that Dr. Hamilton himself cannot be surprised, if others withhold their full assent to his own very positive and peremptory precepts. Our readers may judge for themselves, when they have read the following announcements:—

Dr. H. repeatedly asserts, that there are "invariable signs" and "unequivocal marks" of the existence of pregnancy, in its early as well as in its later stages. "There are (says he) two circumstances which invariably attend pregnancy during the early months, viz. suppression of the catamenia, and a perceptible change on the surface of the mammæ surrounding the nipples." He admits that, in some pregnant women, there may be periodical bloody discharges from the vagina; but he qualifies this admission by stating, that there is always an irregularity in the date of the recurrence (though, perhaps, to the extent only of a day or two), as well as in the duration, the quantity, and the quality of these discharges. He may well add, "in all doubtful cases, accurate information on these points ought to be obtained;"—the very difficulty consists in obtaining such accurate information. Let it not, however, be supposed that we differ in opinion with the Professor on the point at issue; our well-assured conviction is, that the *genuine* menstrual flow does not, and cannot, take place during pregnancy; but of this we are equally certain, that not one woman in a thousand can distinguish *it* from other sanguineous discharges; and it is on their testimony that the accoucheur must in general found his opinion. According to Dr. Hamilton, the other invariable sign of early pregnancy is the change in the appearance of the areolæ round the nipples. To avoid all misconception, we shall quote his own words:

"For many years, the mark on which he has placed his principal reliance for distinguishing the true areola consequent upon impregnation, from the appearance of the surface of the mamma peculiar to the individual in the unimpregnated state, is a certain degree of turgescence on the surface of the discoloured ring, which becomes more and more distinct towards the latter end of pregnancy. In women who have had a family, and in whom there is a brown or dark areola while not pregnant, there is no sensible turgescence of the surface; but during pregnancy the turgescence alluded to is, in most cases, evident to the naked eye, and, according to the author's experience, can in all cases be detected by a magnifying-glass. The elevation of its outer surface can be thus seen distinctly. During menstruation, indeed, there is a certain degree of turgescence, but it proves of temporary duration only, and when the conception becomes blighted in the early months, the turgescence gradually disappears." 146.

Our own experience, and, we may add, that of almost all the latest and best writers on midwifery and on medical jurisprudence do not certainly warrant that unqualified and unequivocal reliance on the changes of the areolæ, as a sign of early pregnancy, which Dr. H. puts in them. Equally unsatisfactory to us has been, in many cases, the test, which, it would seem, has never failed or misled Dr. H., of pregnancy during the latter four months. The progressive increase of enlargement of the belly, and the secretion of milk in the mammæ, he admits to be fallacious signs:

"But the movements of the infant being independent of the control of the pa-

tient, can always be distinguished by an attentive practitioner, and in proportion as pregnancy advances, the facility of this detection increases."

And he adds:

"For the first month after quickening, if the hand be applied over the region of the uterus, the movement of the infant feels like that of a ball suddenly rebounding from the part on which it is thrown, but after another month, when the infant moves, a bulky body can be perceived as if starting, and during the last two months, besides the starting, the infant can be felt to move occasionally its several limbs." 148.

Dr. H. like most physicians of the old school, has no faith in, and indeed no experience of, Auscultation, as affording any indication of pregnancy. He has never tried it, "for the plain reason, that he has not met with a case during the last thirty years where he could not ascertain pregnancy after the fifth month (where the infant continued to live), by the marks suggested in the preceding observations." We shall however allude to some remarks which he offers on this subject in a future part of this article, and we will therefore now pass to another topic on which he is more at home—we mean the duration of human pregnancy.

Contrary to the opinion of the leading accoucheurs in London, most of whom, in their evidence some years ago on the case of the Gardner Peerage, agreed that pregnancy does not exceed the period of nine calendar months or forty weeks (counting from the day preceding that on which the menses ought to have appeared, had the woman not conceived), Dr. Hamilton "is quite certain that the term allowed by the Code Napoleon, viz. three hundred days, is too limited, and he is inclined to regard ten calendar months, which he believes to be the established usage of the Consistorial Court of Scotland, as a good general rule."

We now proceed to the more immediate subject of this article—the consideration of the duties of the accoucheur in the various kinds of labour,—the natural, the preternatural or difficult, and the complicated,—founded on an analysis of Dr. Collins' treatise.

Natural Labours. Dr. C. recommends as a general rule, that every patient should, on the occurrence of the very first symptoms of labour, take an aperient, so as to effectually empty the bowels. The advice is, on the whole, a good one. The passage of the child is facilitated by the empty state of the rectum, and the feverishness of the system also is kept under. Whenever the labour is protracted, the accoucheur ought to enquire repeatedly as to the state of the bladder. A large and stimulating enema, thrown up every five or six hours, will often supersede the necessity of using the catheter. The puncturing of the membranes in natural labours, is very rarely required; it is to be done only when all the parts are well dilated, and the delay arises from a want of proper energy in the uterine action. We need not dwell on the directions (they are all simple and judicious) for the management of natural labours, which Dr. C. inculcates on his readers.

The most important is that, wherein he so earnestly explains the necessity of promoting the complete contraction of the uterus after the expulsion of the child. Throughout the work, he repeatedly urges the precept, that we should "allow the uterus slowly to empty itself, leaving the body and limbs of the child to be expelled by uterine action only; and by pursuing the fun-

dus uteri, in its contraction, with the left hand placed on the abdomen, not only until the fœtus be entirely expelled, but continuing this pressure steadily afterwards, so as to keep the uterus in a state of permanent contraction." The paramount value of this rule must be appreciated by every experienced accoucheur. Let the young practitioner, therefore, never omit to follow it, as it affords the only sure safeguard against that frightful accident—flooding. If it was less frequently neglected, we should hear of fewer accidents after delivery.

"As soon as the head and shoulders are expelled, the left hand is to be instantly placed on the abdomen, immediately above the fundus uteri; thus following down, by a steady pressure, this organ as it contracts, so as to bring it as low into the pelvis as practicable, without using violence. We keep up this pressure *most diligently* from five to ten minutes after the feet are expelled, and when the womb feels firm and well contracted, we make the nurse-tender supply our place, until the child is separated and the binder put on." 122.

In all labours, whenever the head is expelled, the accoucheur ought immediately to ascertain whether the cord is around the neck of the child or not.

The chapter on the subject of *tedious and difficult labours* is full of admirable advice. Dr. C. briefly alludes to the most frequent causes—imperfect uterine action, rigidity of the os uteri and other soft parts, adhesions of the vagina,* early rupture of the membranes, disproportion between the size of the child's head, and the mother's pelvis, malformations,—congenital or from disease,—of the child, &c.

Dr. Hamilton has made some valuably practical remarks on the dangers to be apprehended from allowing the first stage of labour—"all that happens previous to the complete dilatation of the os uteri"—to be protracted too long. His great experience and eminent success entitle his remarks to be well considered by every accoucheur. We shall, therefore, condense all the useful matter contained in the chapter, "on the management of the first stage of labour." The rule which he inculcates on his pupils, and which, he tells us, he has invariably followed for the last 35 years in his practice, is that, "whenever there are regular pains—to be distinguished from what are called false or spurious pains, by their recurring with regularity, and by being accompanied with a tightening of the edges of the os uteri—the first stage of labour should be completed within *twelve* or *fourteen* hours from its *real* commencement."† When protracted beyond this period, the accoucheur has reason to apprehend the following dangerous consequences: the powers of the uterus may be so exhausted, as to be inadequate to expel

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* Dr. C. alludes to four cases of this nature, in which adhesion, the consequence of previous difficult labour, had taken place to such an extent, as to form an unyielding band in the vagina, which completely resisted the descent of the head. Dr. C. divided the band laterally with a probe-pointed bistoury, and in all the cases the labour terminated quite favourably.

† It is well known that sometimes, after regular pains have commenced, there is a complete suspension of them for some hours. "If, during this interval (says Dr. H.), there be no injurious pressure upon any part of the mother, the previous pains are not to be reckoned; but the duration of the first stage is to be dated from the recurrence of the pains."

the child with safety; the infant may be destroyed by the continued pressure of the uterus on its navel-string; the uterus is apt, after the expulsion of the child, to contract either irregularly or incompletely, and thus occasion a retention of the placenta or a dangerous hæmorrhage; and, lastly, the mother is rendered more subject to dangerous febrile and inflammatory affections.

Dr. H. illustrates his precepts by adducing several cases; and he alludes in a pointed manner to the melancholy death of the late Princess Charlotte, which, he thinks, was attributable to Sir Richard Croft having allowed the first stage of labour to be unnecessarily prolonged. It appears that the pains commenced at seven o'clock, p.m. of Monday, Nov. 3d, 1817, and that it was not till three in the afternoon of Wednesday, that the head of the child cleared the os uteri. At six o'clock of that afternoon, the meconium of the infant was discharged—a clear evidence that its life was in jeopardy—and, at nine o'clock, a still-born infant was expelled. The placenta was retained by the hour-glass contraction, internal uterine hæmorrhage followed, and the Princess sunk in little more than two hours after delivery.

By adopting the rule which we have explained, Dr. H. assures us that no patient under his charge for the last thirty-five years has been above 24 hours in labour, and, excepting in cases of disproportion, none so long. He animadverts, with censure, on the published statements of several of his distinguished cotemporaries, as Dr. Ramsbotham, Dr. D. Davis, Drs. Maunsell, Beattie, and Collins, of Dublin, and Madame la Chapelle, of Paris, who seem to allow the first stage of labour to be often prolonged greatly beyond 12 or 14 hours, and delivery to be protracted sometimes to 36, 48 hours, and upwards. Dr. Burns, of Glasgow, certainly one of the ablest writers of this or any age on midwifery, has for many years past been a convert to Dr. Hamilton's opinions. In the earlier editions of his work he had stated:—"It is impossible to determine how many hours a labour may be permitted to continue; for time alone is not to be our rule—we must be regulated greatly by the effects of the labour;" but, in all the later editions, he has modified very materially this statement, as will appear by the following extract from p. 411 of the eighth edition.

"The first stage of labour ought always to be accomplished within a certain time, varying somewhat according to the constitution of the patient and the degree of pain. If the pain be continuing without suspension, or an interval of some hours, and the labour be going on all the time, but slowly, it is a good general rule to effect the dilatation of the os uteri within ten or twelve hours at the farthest from the commencement of regular labour." 208.

The testimony of so excellent an accoucheur as Dr. Burns will have its due weight with the young practitioner.

It will now be asked—what is the treatment recommended by Drs. Hamilton and Burns, to prevent the undue prolongation of the first stage of labour? and we proceed, therefore, to offer a few remarks on this subject.

In a large proportion of cases, venæsection will be found to furnish the most effectual means of promoting the dilatation of the os uteri. This remedy is applicable more especially to all cases where the parts are rigid and unyielding, as often happens when the membranes have prematurely burst, and also in first labours. The use of an opiate enema after the bleeding will be found to be in many cases an excellent adjuvant. When it is not deemed expedient to have recourse to venæsection, the opiate enema

alone will generally succeed. In cases of tedious dilatation of the os uteri, in which bleeding and anodynes are not advisable, gentle manual assistance may be given not only with perfect safety, but with the happiest effects. As it is of the highest importance that the accoucheur should rightly understand the kind of assistance to be given, and the circumstances under which it is proper, we cannot do better than submit the sentiments of two such eminent men as Dr. Burns and Dr. Hamilton to the consideration of our readers.

" If," says Dr. B. " the os uteri be lax, and thin or soft, it is both safe and advantageous to dilate it gently with the finger during a pain. If this be done cautiously, it gives no additional uneasiness, whilst the stimulus seems to direct the action of the uterine fibres more efficiently towards the os uteri, which sometimes thus clears the head of the child very quickly, and the pains which formerly were severe, but in the language of the patient unnatural, and doing no good, become effective and less severe though more useful." 205.

He deprecates all forcible and irritating dilatation, so as to occasion any pain, and cautions his readers against continuing it too long, or repeating it too frequently. Dr. Hamilton remarks:—

" It is done best by pressing on the anterior edge of the os uteri during a pain, with two fingers, with such moderate force as shall not give additional pain, and shall appear to excite the natural dilatation as much as to produce mechanical opening. By doing this for several pains in succession, or occasionally during a pain, at intervals, according to the effect produced, and the disposition to yield, we shall soon have the os uteri completely dilated. 206.

If the os uteri be somewhat projecting, the accoucheur may now and then introduce two of his fingers within it, and extend them laterally with gentleness during a pain, taking care all the while not to press against the bag of the waters.

In some women there is such a relaxation of the vagina, and of all the parts lining the pelvis, that the uterus is forced during every pain low down upon the external parts; and this state of things may occasion great delay in the dilatation of its orifice. Under these circumstances it is only necessary to support and retain the uterus in situ during the pains, by applying two fingers to the edges of the os uteri.

There is one cause of undue protraction of the first stage of labour—fortunately of not frequent occurrence—which Dr. Hamilton ascribes to the existence of an undeveloped band of fibres surrounding the cervix uteri.

" This cause of protracted labour," he says, " can be detected without difficulty, for the edges of the os uteri swell during the pain, as if distended with air, becoming relaxed when the pain ceases; and notwithstanding strong labour throes, neither the membranes nor the infant are brought in contact with them. If, during the interval of the pains, the finger be carried up within the os uteri, the stricture of the cervix will be distinctly perceived." 217.

The treatment which Dr. H. recommends in such a case consists in drawing blood, if the state of the patient will permit, in exhibiting an opiate enema, and after this in introducing the finger above the stricture, and in pressing from within outwards on the resisting band of the uterus during each successive pain.

The last clause of the Professor's advice must be acted upon with great circumspection and gentleness. We are great enemies to all unnecessary manual interference in the management of labour, and we should be rather

unwilling to carry the finger within the cervix uteri, above the seat of the stricture, for the purpose of pressing upon it from within. We prefer the method recommended by Dr. Burns, of making the pressure merely on the anterior edge of the os uteri, as already explained in an extract given above.

So much for the management of the first stage of labour, when there is any unusual delay in the dilatation of the os uteri. The chapter on this subject contained in Dr. Hamilton's book is certainly useful, as our readers may judge by the topics which we have selected from it. We wish that we could with propriety say as much for the succeeding chapter, "On the Management of the Second Stage." Thirty pages of print to be occupied with recommending the accoucheur to apply his *naked* (without a napkin) hand to the perineum when the head is pressing down, and to smear the parts well with soft lard! In truth this is the sum and substance of the whole chapter!!

The chapter on the management of the third stage—by which is meant the separation and expulsion of the placenta and membranes—is rather better, but still far too prolix. We have incorporated all its valuable contents in our remarks on the retention of the placenta.

We now return, after this lengthened interpolation, to our running analytic commentary of Dr. Collins's observations on the treatment of painful and difficult labours. We are to suppose that the head of the child, having cleared the orifice of the uterus, and descended into the pelvic cavity, is there detained so long, that the accoucheur deems it expedient no longer to trust to the natural efforts, but to resort to manual interference.

With respect to the proper period of the labour, at which the accoucheur may be required to give instrumental assistance, he should be regulated much more by the existing state of his patient, than by the mere duration of the pains. Some women will suffer more in thirty hours than others in 90.

"Generally speaking, so long as the pulse remains good, the bowels and bladder act well, the soft parts remain free from severe pressure, and uterine action continues, so as to cause the presenting part to descend ever so slowly, the patient having no pain in the abdomen on pressure, or local distress, the child at the same time being alive, as indicated by the stethoscope, I am satisfied, no attempt should be made to deliver with instruments, and that he who does so, wantonly exposes both mother and child to danger." 8.

The assistance of a second physician should be in every instance, where practicable, obtained, before the forceps is applied. The application of the instrument indeed is almost always abundantly easy, under the only circumstances in which such assistance is required,—"when the os uteri is fully dilated, the soft parts duly relaxed, the head resting on the perineum, or nearly so, and the pelvis of sufficient size to permit the attendant to reach the ear with the finger;" and be it remembered that, when all these favorable conditions are present, unassisted uterine action seldom fails of expelling the child. How rare must be the necessity for instrumental assistance, when we learn that in 16,414 deliveries in the Dublin Hospital, it was required 27 times only—the forceps 24 times, and the lever thrice—and that in 13 of these 27 cases, the labours were *complex*. The entire number gives us the average of about 1 in 608 deliveries. "According to this calculation, most physicians in private practice should require to use the forceps or lever but very seldom; as supposing an individual to attend 4000 cases

in the course of his life—which is a greater number than falls to the lot of most men—instruments would be necessary in little more than *six* cases." Dr. C. unhesitatingly condemns the use of the forceps, when the head becomes fixed or impacted in the pelvis, and when the ear cannot be reached with the finger except by violence, in consequence of any disproportion between the head and pelvis, whether this arise from the increased size of the former, or from the diminished dimensions of the latter.

It is better, if instruments must be used under these circumstances, to sacrifice the life of the child by resorting to embryotomy, than to endanger that of the mother by rash and violent efforts to extract it with the forceps.

"The results I have witnessed (we quote from our author), from such practice, were most distressing; in some, the neck of the bladder, or urethra, either lacerated, or the injury by pressure from the forceps so great, as to produce sloughing, and consequent incontinence of urine: in others, the recto-vaginal septum destroyed, either of which, renders the sufferer miserable for life; and in two cases, where the mouth of the womb was imperfectly dilated, so much injury inflicted on this part, as to terminate in death." 13.

Drs. Denman, Burns, and Merriman, are equally strenuous in condemning the use of the forceps, unless the ear of the child can be distinctly felt, and the perineum be sufficiently relaxed. To talk of using, as a general practice, the forceps in preference to the crotchet, implies a most pernicious and dangerous doctrine; for in truth the one instrument can seldom or never be safely substituted for the other. When the case is one in which, according to the rules now explained, the forceps is applicable, no reasonable man would ever think of using the perforator; and "he who uses the forceps *under other circumstances*, will find reason to regret much he had the misfortune to do so, and his patients will regret still more they had the misfortune to employ him."

Whenever the disproportion between the head and the pelvis is so great as to prevent the physician reaching the ear with the finger, and the life of the mother is endangered by any further delay, the only safe means of effecting delivery is the operation of embryotomy. The following directions are full of practical interest.

"When uterine action continues regular and strong, for 12 or 24 hours after the os uteri is dilated or nearly so, without the child's head making progress; it being firmly compressed in the pelvis, not leaving space for the introduction of the finger to feel the ear, or in some the passage of a catheter into the bladder; the urine perhaps retained from severe pressure on the urethra; or when removed, bloody or very scanty, and of a deep colour; the patient complaining of acute pain on pressure, in any part of the abdomen, the pulse being at the same time hurried, and the strength failing; these are symptoms indicating the use of the perforator, and their being *urgent* or *otherwise* should make us deliver sooner or later." 17.

Dr. C. is of opinion that the circumstance of the head remaining *quite stationary* after the dilatation of the os uteri for a certain number of hours, although the pains have continued all the time, is a surer proof of some impassible obstruction than any which can be derived from the most accurate manual examination.

As long as the head advances *ever so slowly*, the patient's pulse continuing at the same time good, the abdomen free from pain on pressure, and no

obstruction existing to the withdrawal of the urine, embryotomy ought not to be thought of, unless the child be dead. Every one knows what a difficult and important problem in midwifery it has ever been, to determine previous to undertaking this distressing operation, whether the fœtus is alive or not. Before the introduction of auscultation, the signs chiefly trusted to were often uncertain and misleading. Dr. C. gives his unqualified testimony to the invaluable services which Laennec's discovery has bestowed upon the obstetrical art.* How often would the physician be justified in delivering a woman by embryotomy, and thus be enabled to save her hours and even days of the most painful suffering, if he was assured of the death of the fœtus!

There is much to reflect upon in the following short sentence:—

"I have often known patients permitted to endure the most urgent distress for a period of 40, 50, 60, or 70 hours; and at the expiration of this time of sorrow, giving birth to a child, evidently dead for hours, and occasionally putrid." 19.

Four cases in illustration are recorded. Our readers must consult the work itself for the particulars. In one case the poor woman had been *three entire days* in dreadful suffering, and at length was delivered of a *putrid* child. Need more be said of the inestimable advantages of any diagnostic means, which could have saved even one fellow-being from such protracted agony? Although auscultation affords by far the most satisfactory guide to determine whether the fœtus be alive or not, it is pleasing to be furnished with other means and other rules to assist our diagnosis on this point, before having recourse to the perforation of the head.

A volume of practical wisdom is contained in the following extract:—

"I have no difficulty in stating, and that after the most anxious and minute attention to this point, that where the patient has been properly treated from

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* We have already noticed that Dr. Hamilton is no disciple of auscultation. Most of his objections are indeed very trifling; but there is one which deserves notice from its startling novelty. Dr. H. says that in his long experience he has in no instance found the pulse of the child, before it begins to breathe, to exceed sixty beats in the minute. Of the truth of this, he has repeatedly convinced himself by counting the pulsations of the cord not only while the child was still in utero, but also after its expulsion, before respiration commenced. The experience however of his friend and coadjutor Dr. Moir (and we need scarcely add, of all other accoucheurs) is directly opposed to the Professor's statements.

In several cases, where turning was necessary, Dr. M. found that the pulsations of the fœtus in utero were 120 and upwards, and moreover that the number of pulsations ascertained with the hand corresponded exactly with those which he discovered by means of the stethoscope applied to the abdomen of the mother. It deserves however to be mentioned that Dr. Moir invariably found that the number of the fœtal pulsations diminished greatly (sometimes from 120 to between 60 and 70) whenever uterine contraction supervened, and again increased, whenever the contraction was over. This circumstance is the more worthy of being noticed, as Dr. E. Kennedy has not alluded to it in his excellent work, and the reverse of it is maintained by Dr. Hohl, whose work we reviewed in the Foreign Periscope of our last number but one.

The assertion of Dr. Hamilton that the pulse of the child immediately after delivery, provided respiration has not begun, is generally sixty or thereabouts is surely quite incorrect.

the commencement of her labour; where strict attention has been paid to keep her cool; her mind easy; where stimulants of all kinds have been prohibited, and the necessary attention paid to the state of her bowels and bladder; that, under such management, the *death* of the *child* takes place in laborious and difficult labour, before the symptoms become so alarming, as to cause any experienced physician to lessen the head. This is a fact, which I have ascertained beyond all doubt by the stethoscope; the use of which has exhibited to me the great errors I committed, before I was acquainted with its application to midwifery, viz. in delaying delivery, *often*, I have no doubt, so as to render the result *precarious* in the *extreme*, and in some cases, even *fatal*." 16.

As affording a fair estimate of the frequency of impracticable labours requiring the use of the perforator, the tables of Dr. C. shew that in 79 of 16,654 births delivery was effected by lessening the head, in consequence of tedious and difficult labour; exclusive of 39 other cases where either the uterus was ruptured, or the umbilical cord was prolapsed and pulseless, or where the patient was labouring under convulsions;—the total number being 118, giving an average of 1 in 141. In six of the 79 cases the forceps had been ineffectually tried beforehand. Fifteen of the women died: in several of the fatal cases, the patients had been in labour for a great length of time, and when admitted into the hospital, were in a state of complete exhaustion. The dissection in one of these distressing cases shewed that the neck of the bladder and also the vagina were completely eroded and in a state of gangrene—the results no doubt of the prolonged pressure of the impacted head. Seven of the fifteen children were born *putrid*.

On the subject of *Presentations of the Face and with the Face to the Pubes*, we are furnished with the following data. In 33, of the 16,654 births the face presented: in all, delivery was effected *without assistance*. In 12, the head presented with the face turned to the pubes: in four of these the use of the crotchet was necessary;* not however in consequence of the mere irregular position of the head, but of co-existing malformations of the pelvis, or of the cord and hand having descended along with the head, and the pulsation in the former having ceased. The following directions will be read with interest by the practical accoucheur.

* It appears that the crotchet is employed more frequently, and the forceps or vectis much less frequently in the Dublin Lying-in Hospital, than in most similar institutions. The following Table will shew the practice of different accoucheurs in reference to this important subject.

Physicians.	Total number of births.	Forceps or vectis used in.	Crotchet used in.	Relative frequency of instrumental deliveries
Dr. Carus of Dresden....	2549	184	9	1 in 13
Dr. Kluge of Berlin, ...	1111	68	6	1 in 15
Dr. Nægele of Heidelberg	1711	55	5	1 in 28
Dr. Boer of Vienna.....	9589	35	13	1 in 199
Mad. Boivin of Paris* ...	20517	96	16	1 in 183
Dr. Merriman.....	2947	21	9	1 in 98
Dr. Joseph Clarke	10199	14	49	1 in 162
Dr. Collins	16654	27	118	1 in 114

* The mortality at the La Maternite in Paris is "vastly beyond what we are acquainted with elsewhere."

"Where the face is turned to the pubes, the perinæum is greatly distended during the passage of the head, in some instances, so as to endanger its safety; in such, the distention may be much relieved by passing up the finger and freeing the chin, so as to cause it to escape the arch of the pubes. All attempts to alter the position of the head in the early period of labour, when found presenting in either of the above-mentioned ways, are, in my opinion, injudicious. The labour should be treated as one perfectly natural." 35.

And he adds "the position (whether the face presented, or was turned to the pubes) of the child did not in any instance render artificial delivery *necessary*."

On the treatment of *Breech Presentations*, the remarks of Dr. Collins are pervaded with the soundest advice. He strongly urges the importance of conducting the early stage of the delivery, before and during the expulsion of the breech, slowly and very gradually, so that the parts may be well relaxed and expanded when the head comes down, Whenever we have reason to suspect a breech or foot presentation, we should be more than ordinarily cautious not to rupture the membranes. No assistance is usually required, except in supporting the perineum, until the breech and lower extremities are fairly protruded. If indeed the uterine action be from any cause inefficient, or if any accident occur rendering speedy delivery necessary, the accoucheur may by hooking his finger round one of the groins of the child assist in drawing down and expelling the breech. The use of the blunt hook for this purpose is rarely or never necessary. Dr. C. has employed it only *once* in upwards of 24,000 deliveries.

When the breech and lower extremities are expelled, the finger should be passed up the vagina to ascertain the state and position of the umbilical cord, as the chief danger of these presentation-labours arises from the compression of the cord and the interruption of its circulation during the delivery of the head. If the pulsations of the cord be feeble, or if we have other reasons to suspect that the life of the fœtus is endangered, the delivery ought to be expedited as much as the mother's safety will permit, by cautiously bringing down the arms, the one after the other, and then by passing the left fore-finger into the child's mouth, so as gently to depress the chin on the sternum, we are able to direct the efforts of our right hand at extraction. Should any considerable obstruction to the expulsion of the head be experienced, no motive must ever induce the accoucheur to use *violence*, for the mother may be irretrievably injured, and, moreover, the chances are that the life of the child will not be saved. Whenever the head is strongly and for any length of time impacted, we may be almost assured, says Dr. Collins, that the child has ceased to live, in consequence of the circulation through the cord having become interrupted.

"The only safe plan, under these circumstances, will be to lessen the head by means of an opening made behind one or both ears. This expedient, however, is *very seldom* necessary, provided the early part of the labour be not hurried, or the pelvis not much under size. We only met with *one* case requiring this method of delivery." 43.

The actual number of breech-presentations in the practice of Dr. Collins, was 242 out of the 16,654 births (not including those which occurred in twin cases). Of these 242 children, 73 were still-born, of which 42 were putrid. Of feet-presentation cases there were 127; in 62 of which the

children were dead; and of these 62, 41 were putrid.* Before quitting the subject of breech and foot presentations, it may be useful to remind the reader of the propriety of his acquainting the friends of the patient with the risk to which the child is exposed, as soon as he has ascertained the presenting part. As a matter of course, it should not be communicated to the woman herself.

Presentations of the shoulder or arm are much more serious accidents than those which we have hitherto examined, the life of both mother and child being but too often endangered.

The importance of ascertaining exactly the nature of the presentation at an early period of labour, and before the bag of the membranes has burst, cannot be too earnestly urged on the attention of every accoucheur. We may assume it, as a position of general truth, that when the shoulder or arm presents, the delivery of the child cannot be effected without the interference of art: either the child must be turned and the case be converted into a footling one, or when this is impracticable, the perforator must be resorted to. Dr. Denman's doctrine of "spontaneous evolution" is too fanciful a hypothesis to base any practical directions on it. Out of nearly 35,000 deliveries in the Dublin Lying-in Hospital, *one* case only (and that of very questionable authenticity) of spontaneous evolution is on record.

Although we are not prepared to assert that a shoulder or arm presentation is never rectified by the efforts of unassisted Nature, we think it better to exclude the consideration altogether from our minds, when we have to determine on the line of practice to be followed in the emergency to which our present remarks apply.

"The propriety" says Dr. C. "of turning the child, when it presents with the shoulder, or arm, in all cases *where it can be effected with tolerable safety to the mother*, cannot be questioned."

This is to be the guiding rule of the accoucheur. It is alike simple, unerring, and imperative. One of the most important objects to be determined, is the proper period at which the operation of turning may be attempted. If the os uteri be fully expanded, if the parts be relaxed and soft, and the parturient pains be not violent, we may safely proceed to turn the child.

The attempt is greatly facilitated, when the membranes are entire, or have but lately burst, and when a portion of the liquor amnii is still present in the womb. Unfortunately indeed it not unfrequently happens that the membranes give way at an early stage of the labour, and that the womb in consequence has contracted firmly and almost spasmodically round the protruded part, so that although the os uteri be expanded, the finger cannot be passed between its margin and the arm or shoulder. This is a case of *difficulty*, it is true, but it ought not to be one of *embarrassment* to the accoucheur. The course he must pursue is simple and undeviating. All violence is to be most

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* The great mortality of children born by breech or foot presentation deserves to be noticed. It is to be attributed in a great measure to the circumstance of many of the children being dead before the commencement of labour. This is proved by the number of putrid fœtuses, 83 out of 369, alluded to above. A large proportion of these births occurs prematurely, between the seventh and ninth months. Nature thus seems to have provided in some degree against the danger of preternatural presentation deliveries.

carefully avoided, and on no consideration is the hand ever to be thrust forcibly into the uterus. Delay may be attended with danger, but rashness and violence with the almost inevitable destruction of the poor patient. A bleeding from the arm, large if the patient's strength will bear it, ought to be first practised, and then repeated doses of tartar emetic may be given at short intervals, until a certain degree of nausea, and of general relaxation be induced. Dr. C. is in the habit of ordering a table-spoonful of a mixture containing four grains of the salt in six ounces of water to which 30 drops of the acetum opii are added, every half hour. These means, judiciously employed, will almost invariably produce the desired effect. Dr. C. says

"I never knew of more than one instance, where the patient could not be delivered previous to death, owing to the rigid and unyielding state of the os uteri; this occurred when I was a pupil in the Hospital; the mouth of the womb was absolutely as firm as a piece of thick leather, and embraced the arm of the child as tightly as a ligature could be applied, without cuttingthe part." 67.

To attempt turning, while the pains are still forcible and frequent, and the os and cervix uteri closely embrace the projecting part of the child, cannot be too earnestly deprecated.

The bladder is invariably to be emptied before we commence the operation. In some cases, the rectum also may require to be evacuated. The hand is then to be passed slowly, tenderly and yet firmly; never hurriedly or with any sudden thrust. Whenever a uterine pain comes on, we must wait until it subsides, laying our hand flat on the body of the child during the continuance of the pain. If the uterine action be violent, the tartar emetic mixture with a larger quantity of the acetum opii will generally be found to allay it considerably. The accoucheur must be on his guard not to mistake a hand for a foot; a mistake which he may be apt to commit, from his own hand becoming quite benumbed by the constriction of the womb.

Again we have to beseech the physician to proceed with uniform caution, gentleness and steadiness in every step of the operation of turning. Half an hour, or even a full hour may be required to complete it with safety in cases of difficulty. So much for the one method of effecting delivery in shoulder or arm presentations: the other consists in diminishing the size of the child by perforating the thorax, and then bringing down the breech. This is always a lamentable expedient, and is never to be used except when the safety of the mother demands it. Certain however we are that accoucheurs have been on the whole far too timid and reluctant in the adoption of it, and that while many a mother's life has been sacrificed to unnecessary delay, scarcely one child has been saved thereby.* Dr. Collins' sentiments deserve to be expressed in his own words.

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* The history of the sixth case related by Dr. Ashwell affords a melancholy proof of the fatal dangers of injudicious interference. At 10 P. M. the right extremity of the child was found protruded beyond the os externum. Two rather *forcible* attempts at turning the child seem to have been made, but in vain: not even the knees or feet could be reached. After a bleeding was practised, and another large dose of opium given, a third attempt to turn was made; but this was as fruitless as the two preceding. Early on the following morning Dr. Ashwell himself visited the poor woman: "the abdomen was tender to the touch, and the vagina and internal parts were hot, tumid and sore." In this deplorable

"I shall now endeavour to point out those cases, where no prudent practitioner would, we think, attempt to turn; yet, such attempts we have witnessed, but with very fatal results. The cases we more particularly allude to, are, where the waters have been long discharged, the uterine action powerful, and the child's body forced low, and firmly impacted into the pelvis for several hours; in such, turning would be hazardous in the extreme; besides, under these circumstances, the child's life is destroyed by pressure; a fact which we have clearly ascertained by the stethoscope; by which we are enabled to detect the death of the fœtus, at a period, when otherwise, we might be induced to expose our patient to the utmost danger in the attempt to turn, where we have a comparatively safe means of delivery. The singularly rare occurrence of a living child being born, where spontaneous evolution takes place, even in the most expeditious manner, affords additional testimony of the fatality to the child in such cases." 70.

Whenever we have good reason to believe that the child is dead, we need have no scruple in resorting at once to embryotomy, if there be the slightest difficulty in turning the child. The late admirable accoucheur Dr. Joseph Clarke alludes to "many patients losing their lives by practitioners of good repute insisting on turning the fœtus, although evidently putrid;" and recommends that in such cases the thorax or abdomen should be rather perforated, and the breech then brought down by the aid of the crotchet or blunt hook.

Dr. Collins adds his powerful testimony to the same effect: "This," says he, "from ample experience is the practice we would unhesitatingly recommend; and that *in all cases* where the death of the child can be satisfactorily ascertained." The operation is sometimes very tedious and troublesome, requiring in most instances an hour and a half or two hours for its completion. Occasionally when the resistance is great, and a very speedy delivery is not necessary, it may be advisable, after perforating the thorax, and thus lessening the bulk of the child, to leave the patient quiet for a few hours: the fœtus becomes collapsed, and Nature will often complete the expulsion.

Of the 16,654 births, there were 40 in which the shoulder or arm presented. In 33 of these the children were delivered by turning: in three, however, the head required to be perforated before the delivery could be accomplished; 20, one half of the entire number, were born alive. In six of the 40 cases it was necessary to apply the perforator to the thorax and abdomen, and then to deliver by bringing down the breech. Four of the women died: two from rupture of the uterus; one from puerperal fever; and one from phrenitis.

"Of the *twenty* still-born children, *six* had the thorax lessened; *three* had the head perforated after having been turned, the pelvis being under size; *three* were putrid; *two* had the arm down on admission; with *one* the waters were discharged on admission; with *one* the waters had been 40 hours discharged; and with *one* 7 hours; the child being also very large; with *one* there was much

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condition she was removed by his advice from her own dwelling into the hospital! At half-past one P. M. (fourteen hours and a half after the first attempt to turn) Dr. A. endeavoured to decapitate the child, but he was foiled. At five P.M. and again at ten P.M. he made two other attempts, but was equally unsuccessful, the conjugate diameter of the brim of the pelvis being scarcely more than two inches and a half. The woman died undelivered a few hours afterwards.

difficulty in getting away the head, the bones of which were much compressed; with *one* the placenta presented; and with *one* there was neither delay nor difficulty.

This short abstract is given, to shew, that, in the great majority of these cases, death had taken place previous to any attempt to deliver; and that in *none*, was the actual deliuery the cause of death, where disproportion did not exist." 74.

The subject of "*uterine hæmorrhage*," *or flooding*, next demands our attention. It is certainly one of the most alarming and dangerous accidents to which parturient women are exposed. Alarming, indeed, it is to the physician also; but let us remember that on no occasion, within the whole range of medical practice, may the utility of our art be more indisputably vindicated, than by the successful treatment of hæmorrhage during or after labour. The classification of uterine hæmorrhages into those which are *unavoidable*, and those which are *accidental* (according as the placenta is attached over the os uteri, or at some other part of the womb), first distinctly urged and illustrated by Mr. Rigby of Norwich, must ever be borne in mind, as the success of our practice will in most cases mainly depend on the correctness of our diagnosis. If we have once fairly ascertained that the placenta is situated directly over, or with a projecting edge at the os uteri, we are quite certain that hæmorrhage, if it has not already occurred, must take place when the efforts of dilatation commence. It is therefore aptly denominated "unavoidable."

With respect to the assistance which is demanded from the medical attendant under such circumstances, fortunately there cannot be any difference of opinion, except perhaps in reference to the exact time, at which his interference is most proper. The amount of the hæmorrhage is by no means always proportionate to the extent of the separation of the placenta from the uterus: unhappily too it may be very large, even when but little escapes outwardly, for the blood may be poured into and retained within the uterine cavity. It is also to be remembered that some women cannot bear any profuse loss of blood, without an almost immediate sinking of the powers of life, while others will recover after most frightful hæmorrhages. All these considerations must influence to a certain degree the conduct of the accoucheur, when summoned to a case of unavoidable uterine hæmorrhage.

This species of hæmorrhage may either come on suddenly and with violence, and it may not subside until delivery or death take place, or it may be more gradual, and its threatening may have been indicated by occasional discharges of blood during the latter stage of pregnancy.* Any such discharges therefore in the last three months must be most cautiously watched; and as soon as labour commences, the accoucheur should endeavour to ascertain exactly the position of the placenta. Unavoidable hæmorrhages are very generally increased, while accidental hæmorrhages are usually diminished during every labour-pain. On no pretext is the accoucheur ever to leave the bed-side of a patient, when he has discovered that the placenta is situated over or near to the os uteri. No premature interference however, even under these circumstances, is justifiable. He must cautiously wait until the

* It is a well-ascertained fact, that hæmorrhages occurring near the full period of pregnancy, are almost invariably more enfeebling and dangerous, than at any earlier period. If properly treated, women seldom die from hæmorrhage before the sixth month.

uterine orifice opens, and becomes sufficiently dilatable to permit the introduction of the hand without force or violence. Cases indeed of unusual difficulty will sometimes occur, where in consequence of the alarming loss of blood immediate delivery must be attempted, even although the os uteri is rigid and unyielding; but dire necessity only should induce him to hazard the consequences of such violence. In duty to himself, the accoucheur should acquaint the friends of the patient with the extreme danger of the case, previous to making any attempts to turn and deliver the child. The following directions cannot fail to be duly appreciated by every physician who may be summoned to the relief of a case of unavoidable hæmorrhage.

"As to whether the hand should be passed through the placenta, or at its edge, we must be guided by circumstances; always introducing it slowly and gently wherever we find the resistance or opposition least. If it have been well soaped previously, it will seldom cause acute pain, the parts being relaxed and lubricated by the discharge. It will much facilitate the operation to have the hips placed as near the edge of the bed as may be, the nurse-tender at the same time elevating, as much as she can, the right knee. When we have so far succeeded with the delivery as to have got the feet into the vagina, the remainder should be conducted slowly, in order to permit the mouth of the womb to yield gradually to the passage of the child's body and head; and also, to encourage a regular and perfect contraction of the uterus; which in such cases is of the last importance to the welfare of the patient. Too much care cannot be observed to prevent loss of blood after delivery; even a slight subsequent discharge is much to be dreaded." 95.

Before leaving the bedside, we must carefully examine the state of the uterus, and ascertain, even by manual exploration if necessary, that it has continued properly contracted; as inward hæmorrhage will sometimes take place, and, the cavity of the womb becoming distended with blood, the patient will expire, although no outward draining has been observed.

Twenty-four cases of profuse hæmorrhage previous to the birth of the child occurred during the Mastership of Dr. Collins at the Dublin Hospital. Eleven of these were of the unavoidable sort. In eight of the eleven cases, the presentation was natural; in four of these the children were turned; in one the labour was completed without assistance; in one the forceps; and in the other two the perforator was used. Of the remaining three, two were footling, and one was a breech case. Six in all of the children were born alive. Two of the women (and in these the children had been turned) died; all the rest recovered. In one of the fatal cases, immediate delivery was absolutely necessary, although the parts were not sufficiently relaxed, and the os uteri was but very imperfectly dilated. On dissection, "a laceration of the neck of the uterus anteriorly and to the right side was discovered, commencing at its junction with the vagina and extending upwards."

In the other fatal case, the death was owing to the excessive exhaustion alone: hæmorrhage had continued for some time after the birth of the child.

One of the cases where the patient recovered is extraordinary, from the placenta having been expelled many hours before the delivery of the child, which however was quite putrid. It is altogether so singular, that it deserves to be recorded in the words of the author.

"G. J. at her full time; was admitted in a state of extreme debility, her pulse

so weak and frequent as not to be counted. The foot was found in the vagina, so putrid that the skin peeled off on the slightest touch. The discharge was fetid. Stimulants and cordials were freely given, and the child brought away without difficulty. The uterus remaining enlarged and relaxed, the hand was passed to remove the placenta; when there was *none* to be discovered; nor was there any hæmorrhage. The membranes had ruptured and the waters been discharged, a fortnight previous to admission, from which time, until the evening before she was brought to Hospital, she had more or less hæmorrhage. It was now ascertained that the placenta had been expelled the evening before her admission, and separated by the midwife in attendance. She had been twice visited by a medical practitioner, who *bled her* and gave *purgatives*. She left hospital well on the 13th day." 103.

Accidental Uterine Hæmorrhage, or that which is caused by a separation of the placenta from any part of the womb except its orifice, is next to be noticed. It is a much less alarming accident than the unavoidable hæmorrhage. In the majority of cases it will subside under appropriate treatment, without any direct interference with the delivery.

The first and leading duty of the accoucheur, is to ascertain whether the placenta is situated at or over the orifice of the womb: if it is not, he has reason to hope that, unless the hæmorrhage be unusually profuse, or some unforeseen accident occur, a prudent management may conduct the labour to a fortunate issue. To check hæmorrhage before the coming on of labour, a recumbent posture, perfect quiet, refrigerant drinks, opiates (occasionally) and cold applications to the external parts will always be judicious. If these means fail, rupturing the membranes so as to discharge part of the liquor amnii, and induce a certain degree of uterine contraction, is "almost invariably a safe and effectual expedient." This simple operation will often suffice; and we should therefore never proceed to turn and extract the child (a practice which has been too indiscriminately recommended in such cases by Dr. Burns) until we have watched the effects of merely discharging the waters. The caution so earnestly impressed by Dr. Collins in the following sentence should be well remembered by the young accoucheur.

"I know of no operation, more truly dangerous both to mother and child, than the artificial dilatation of the os uteri and turning the child; and confident I am, that the practitioner who adopts such a line of practice, *except from strict necessity*, will often have abundant cause to regret his proceedings." 108.

The experience of the most experienced accoucheurs of the present day demonstrates the very decided success which follows the rupturing of the membranes, when the placenta is not attached at the orifice, and the hæmorrhage is therefore of the accidental, and not of the unavoidable species. Dr. Merriman reports 30 cases, and Mr. Rigby 51 cases, of alarming accidental hæmorrhage successfully treated in this manner. The injudicious advice therefore of Dr. Burns, contained in the following extract from his work, cannot be too strongly deprecated.

"In those cases where the placenta presents, few practitioners would think of trusting to the evacuation of the liquor amnii; they would deliver. If then delivery be considered as safe and proper in one species of flooding, it cannot be dangerous in the other; and whenever interference in the way of operation is necessary, the security afforded by the introduction of the hand will much more than compensate for any additional pain. But even in this respect the two operations are little different, if properly performed." 108.

To rupture the bag of the membranes, the finger will generally suffice: if the os uteri however be very high up, or the membranes unusually lax, the use of a blunt probe may be necessary. When the hæmorrhage continues after the rupturing of the membranes, so as at all to endanger the life of the mother, we must then resort to immediate delivery, either by turning or with the forceps. If the child be dead, as may be ascertained by the stethoscope, "we should rather perforate the head and extract, than expose the mother to the danger of turning."

Very generally the child is still-born after any very profuse uterine hæmorrhage. The extreme importance of withdrawing the child gradually and uniformly, and of employing at the same time other means, as firm pressure over the abdominal tumor, so as to insure a complete and permanent contraction of the uterus, cannot be too frequently and too earnestly insisted upon. The life of the mother depends upon our care in this respect.

It may be necessary to administer wine, brandy, and other cordials before as well as during the attempts to deliver.

The following succint account of the appropriate treatment in unavoidable and in accidental uterine hæmorrhage may usefully close our remarks:

"Where the placenta is fixed *over or near the os uteri*, nothing but delivery will put a stop to the loss of blood; whereas, if the placenta *be not so situated*, the discharge not profuse, and the patient's strength not much reduced, we should use every effort to arrest it, by the means commonly recommended, and wait for nature's assistance in the expulsion of the child. If, however, the natural efforts be not likely to effect this in a reasonable time, and the strength be gradually failing, it will be necessary to rupture the membranes, and should this not succeed in checking the hæmorrhage, we must deliver by art, carefully bearing in mind the directions laid down for the successful accomplishment of our object." 112.

The hæmorrhage which is apt to occur between the delivery of the child and the expulsion of the placenta is invariably connected with retention of the placenta, and with an imperfect contraction of the uterus. Very often these unfortunate circumstances are attributable to the earlier stages of labour having been hurried or unnecessarily interfered with. Some females indeed appear to have an unusual predisposition to violent flooding with every child, and others to a tedious and most obstinate retention of the placenta.

Dr. Collins permits the placenta to remain, if no hæmorrhage supervene, for two hours after the delivery of the child without interference. We consider this to be rather an unnecessary delay; we have never witnessed any unpleasant effects from gently withdrawing the placenta, or rather from merely stimulating the internal surface of the uterus, by the hand introduced, to throw it off, within an hour after the child has been expelled.*

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* This sentence, and indeed the whole of our review, as already stated, of Dr. Collins' work had been written before we saw Dr. Hamilton's observations. We had expected to have been able to have inserted it in our last number, but the more than ordinary press of matter has delayed it to the present one. The opinion expressed as to the propriety of removing the placenta within an hour after the expulsion of the child is sanctioned we are happy to find, by the high authority of the Edinburgh Professor. His words are: "From the earliest period of the author's professional life, he was taught to adopt two rules in

His advice also to the accoucheur "never to leave a patient for *at least one hour* after the placenta has come away, and she has been free from any unnatural discharge of blood" is surely not requisite when the labour has been regularly and uniformly natural.

Of sixty-four cases of hæmorrhage occurring between the birth of the child and the expulsion of the placenta during the mastership of Dr. Collins, seven proved fatal; two only however from the mere effects of the loss of blood. In six, the hæmorrhage continued for some time after the removal of the placenta; in 13 cases, the placenta was found firmly adherent to the uterus, and in 8 cases the hour-glass, or irregular contraction existed.

The very firm adherence of the placenta to the uterus, requiring its manual separation and removal, is always a most unpleasant complication; the uterus is apt to become inflamed in consequence, and this danger is increased tenfold, if puerperal fever be prevalent at the time.

In one of the cases related by Dr. C. we observe that the adherent placenta had been allowed to remain for two hours, and in another case for three hours, although there had been occasionally slight hæmorrhages; we certainly should not have waited so long ourselves, before removing it. No advantage is gained by so tedious a delay, and the uterus is certainly less disposed to contract after an expiry of two hours than of one only after the expulsion of the fœtus. In removing the placenta when it has been firmly adherent, the accoucheur should be most watchful that the uterus contracts upon the placenta and the hand as they are gradually withdrawn.

Dr. Hamilton devotes a good many pages to the consideration of retention of the placenta from its morbid adhesion to the uterus, and from the hour-glass contraction of the womb. He alludes to the changes in structure which the placenta sometimes exhibits; as, its surface being covered with a film of osseous matter—bony spiculæ penetrating through its substance, or part of it being converted into a gristle, of a compact dense texture, and semi-transparent like melted horn. In detaching a morbidly adherent placenta Dr. H. deprecates the practice, commonly pursued, of insinuating the

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respect to the management of the placenta, viz., to interfere upon the very first threatening of hæmorrhagy, and, where there were no untoward symptoms, to wait no longer than one hour for the natural efforts. Every year's experience has strongly impressed his mind with the utility of those precepts."

But we must enter our protest against one at least of the precepts contained in the following remarks on retention of the placenta occasioned by atony or imperfect contraction of the uterus: "The appropriate practice in this case is, to excite the contraction of the uterus. This is best done by the exhibition of a cordial; the application of heat to the lower part of the belly; and pressure upon the uterus by means of the hand.

If the contraction of the uterus be not secured by the employment of these means within an hour after the birth of the infant, a stimulant enema ought to be administered, and should that fail, the manual separation becomes indispensable." 280.

The application of heat to the lower part of the belly in such a case is surely most unwise and improper. We object also to the exhibition of a stimulant enema. It is only losing time and giving annoyance to the patient. All that is ever required is very firm pressure on the uterine tumor with the hand, and if this fail, the introduction of the hand into the vagina.

fingers between it and the surface of the uterus—a practice, he says, which is apt to excite inflammation of the womb, and sometimes even to produce laceration of its substance—and recommends that "pressure be made exclusively upon the fœtal surface of the placenta, bringing its circumference towards its centre, and detaching leisurely and carefully all that can be separated by this manipulation." Firm pressure on the uterine tumor from the abdomen must be steadily kept up all the time.

Dr. H. assures us that in his extensive experience he has very rarely observed any injurious consequences to arise from leaving the indurated maternal portion of the placenta in the uterus.

"He has attended many cases where two, three, or more days have intervened between the birth of the infant and the separation of the adherent indurated portion of the secundines, and he never witnessed any untoward symptom, such as flooding or subsequent irritative fever. In one case, a mass weighing eight ounces was retained five days without occasioning any symptoms indicating danger.

When it is thus necessary to leave a portion of the adhering mass, the progress of the case must be carefully watched, and particularly, the state of the lochial discharge must be examined at least twice a day, in order to ascertain when the sloughing of the retained portion is effected, for wherever that happens, a strong purgative enema must be administered." 299.

With respect to the symptoms and management of retention of the placenta in consequence of the hour-glass contraction of the uterus—an accident which if not speedily relieved is of most alarming danger—Dr. H. offers the following remarks. He is of opinion that its existence is indicated by the following characteristic symptoms: although uterine contractions follow the birth of the infant, there is no lengthening of the cord; the uterus examined through the abdominal parietes is felt like two rounded bodies joined together; and lastly when the cord is pulled gently, it readily comes down, but, on being let go, it recedes with a jerk. Dr. H. says that the hour-glass contraction of the uterus is "always the effect of mismanagement;" often of the improper protraction of the first stage of labour, as in the case of the Princess Charlotte; or of extracting the body of the child the moment the head is born, before the womb has properly contracted upon itself. The treatment to be pursued is thus laid down by Dr. Hamilton.

"For the purpose of remedying this cause of retention, an opiate enema should be first administered (provided there be no hæmorrhagy), and after half an hour, the practitioner should proceed to introduce his hand, guided by the cord, to overcome the constriction, to separate the placenta, and to secure the regular contraction of the uterus." 283.

Should hæmorrhage occur after the placenta has been expelled, firm pressure with the hand over the uterus, and the application of cold water will generally suffice; but if these means fail, then the most effectual are the reintroduction of the right hand into the uterus, and the firmly grasping of it outwardly with the left one at the same time, combined with the internal administration of stimulants (if the patient be very low) and the directing of a stream of cold water from a height on the hypogastrium.

A large opiate is usually necessary afterwards in such cases. Great restlessness occurring after any profuse loss of blood is always a dangerous symptom, and the sooner it is effectually checked by an opiate the better;

30 or 40 drops of laudanum in union with a cordial, such as brandy and water, may be given every twenty minutes, until the patient is lulled to quiet.

Dr. C. tells us that he has sometimes succeeded in allaying extreme restlessness by the injection of 30 or 40 drops of the acetum opii in cold wine and water into the rectum, where opium freely given by the mouth had failed.

Forty-three cases of hæmorrhage subsequent to the expulsion of the placenta occurred among the 10,414 labours. In one half of the cases it happened within the first fifteen minutes, and in the rest at various intervals, from half an hour to several days. In eight the hæmorrhage was internal; in five, both external and internal. Four of the women died; two only however from the effects of the loss of blood, and in both these cases portions of the placenta were found adherent to the uterus. We should be inclined to believe that most of the cases of profuse hæmorrhage after the expulsion of the placenta were owing to retention of part of the placenta. The entirely empty womb is much less subject to drainings of blood than when any foreign substance is within its cavity.

The eight cases of *internal hæmorrhage* reported by our author merit the attentive consideration of every obstetrical reader. Whenever a woman, soon after delivery, becomes faint, low, and pallid, without any obvious cause, the accoucheur ought forthwith to suspect the existence of this insidious accident. The introduction of the hand, the firm compression of the uterus, and the application of cold water in a stream to the hypogastrium are the most potent remedies.

On the subject of *puerperal convulsions*, we shall select only the most interesting and novel remarks of our author, as in our Number for last July we devoted several pages to the consideration of this most important disease.

Dr. C.'s experience agrees with that of Dr. Joseph Clarke, and of Dr. Merriman, that convulsions are much more common during first than during any subsequent labours, and (which is rather a curious circumstance), that in almost every case of convulsions, the presentation will be found to be natural. Dr. Denman has remarked, "that he thought for many years that convulsions only occurred where the head presented, but experience has now proved that they sometimes occur in preternatural presentations."

Of 30 cases in our author's practice, five proved fatal. In 15 of the 30 cases, the patients were delivered by the natural efforts, in six by the forceps, in eight by the perforator and crochet, and in one only the feet presented. In 18 cases the convulsions subsided after delivery, in 10 they continued for some time after, and in two the attack did not come on till after delivery. Fourteen only of the children were born alive.

The post mortem appearances discovered in four (dissection was not permitted in the other case) of the fatal cases did not throw any light on the nature or cause of the disease; once only an encephalic lesion was found; "a quantity of effused fluid and blood was observed under the pia mater of the posterior lobes of the brain;" in three cases, the vagina had been lacerated, and in one there had been inflammation of the peritoneum.

Dr. Denman long ago remarked the great liability of patients to abdominal inflammation, after attacks of puerperal convulsions. Other writers

have confirmed the accuracy of the observation. In the treatment of puerperal convulsions, Dr. Collins trusts chiefly to large bleedings, and to the use of tartar-emetic, given in doses of from a quarter to half a grain with a few drops of laudanum, every twenty or thirty minutes, until complete nausea and general relaxation of the system are induced. Pounded ice, or iced water, should be applied to the head at the same time. However alarming and dangerous convulsions are, and important although it may be, in such cases, that delivery be speedily accomplished, Dr. C. deprecates the practice of artificial dilatation of the os uteri, for the purpose of turning and extracting the child, as recommended by Dr. Burns; "indeed," says he, "there are few instances under any circumstances (some hæmorrhages excepted) where I should recommend this practice; but in *convulsions* I consider it particularly injurious."

The tartar-emetic treatment will be found of the greatest utility in enabling the accoucheur to gain time, until the os uteri is duly dilated. We shall give the abridged particulars of one case to illustrate the practice recommended by Dr. Collins. A. B. was brought to the hospital in labour, having had several convulsive fits for some days previously; on admission, she was quite insensible, and was scarcely placed in bed, when a severe fit comes on. She bled to twenty ozs. and two table-spoonfuls of a mixture—composed of eight grains of tartar-emetic, forty drops of laudanum and eight ounces of water—were given every half-hour.

The fits returned in quick succession: the bleeding was twice repeated, ten grains of calomel were given, the antimonial mixture continued, and cold lotion applied to the head. Hitherto the os uteri was undilated; but in the course of an hour it began to expand, and gradually attained the size of a half-crown. During this time the patient had several fits, some of which were extremely violent; and before she was delivered on the following morning with the forceps, she had had in all *seventeen fits* since her admission into the hospital. In the intervals of the fits, the patient was incessantly tossing about, and seemed insensible to every thing. After the expulsion of the placenta, thirty drops of laudanum were given, and the cold applications kept steadily to the head.

During the following four hours she had seven fits, but none were very severe, and she remained in a stupid dozing state. The tartar emetic mixture was resumed; but as the unpleasant symptoms did not abate, twelve ounces of blood were drawn, and powerful purgatives were administered;—a blister also was put on the nape of the neck. In the course of twelve hours, these active remedies had induced a considerable abatement of the lethargy and general oppression. For several days the mind was always more or less disturbed, and it required repeated application of leeches to the temples, and the employment of the most rigid antiphlogistic treatment to lead the case to a favorable issue.

The details of this case shew that, even when the convulsions are frequent and severe, we may with perfect safety defer for some time any interference with the delivery. In many of the other examples recorded by Dr. C. the patients underwent several violent paroxysms, before the labour was completed either by natural or by artificial means. The young practitioner must not therefore allow himself to be alarmed into any rash attempts to extract the child, if the labour be not sufficiently advanced, and the parts

are not duly dilated. A fair trial is to be given to the powerful remedies Dr. Collins so urgently recommends, before any manual or instrumental interference is resorted to.

With respect to convulsions occurring after the delivery of the child Dr. C. is of opinion that they are less frequently dangerous than those which precede it. His experience on this subject differs from that of Dr. Ramsbotham, who has stated in his practical observations.

"That convulsions, after delivery, are more untractable and prove more frequently fatal, than where they occur previous to, or during labour." He continues, "I have remarked that when they come on under either of the latter circumstances, and continue after delivery, whether it may have been effected naturally, or hastened by art, they generally prove destructive to the patient." 231.

The use of opium in puerperal convulsions has been a "vexata quæstio" among medical writers. Some, and these of high eminence, as Hamilton, Burns, and Ramsbotham, have unqualifiedly rejected and denounced it as highly dangerous, while Dr. Collins assures us that "ample experience, however, has convinced me, that it is not only harmless, but *highly beneficial*, in those cases where the fits *continue after delivery*; and I should hope the cases adduced will prove satisfactorily, that it is also useful under many other circumstances, where proper steps had been previously taken. Its combination with Tartar Emetic, and occasionally with calomel, is most advantageous."

The dispute may we think be easily adjusted. Whenever convulsions are connected with plethora or increased activity of the circulation, opiates must be injurious; but when they appear to be the result of excessive irritability, or of exhausted energy, they will be found, if administered with judgment, and associated with other means, as cold to the head and blisters to the neck, of great service. All *unqualified* praise or condemnation of particular remedies, either in this or in any other disease, is unscientific, and indicates a prejudiced mind.

Rupture of the Uterus or Vagina. This most melancholy accident is apt to be induced, whenever the uterus during parturition is excited to very violent expulsive action, especially if there is at the same time any unusual obstruction to the delivery of the child. Hence, narrowing of the pelvis, unnatural rigidity of the soft parts, and a disproportionate size of the fœtus are, one or all of them, very generally present in cases of rupture of the uterus. The operation of turning is unfortunately not an unfrequent cause of this accident, and even the rash and violent efforts to remove an adherent placenta have induced it. Dr. Collins has known the mouth of the womb to be torn by the imprudent use of the forceps. He denounces in the most impressive language that overhasty and most dangerous practice of resorting to manual or instrumental interference, before the os uteri and other soft parts are duly dilated. We fear that too many accoucheurs do not weigh sufficiently the serious and even fatal consequences which sometimes follow the operation of turning, injudiciously attempted, or rashly executed. The symptoms of rupture of the uterus are usually most appallingly characteristic: the sudden cessation of the labour-pains, the feeling as if something had given way within, the recession of the child, the deadly faintness, the

acute crampish pain in the region of the stomach, and the urgent distress on pressure over the uterus, too surely proclaim the nature of the accident. Sometimes, however, when the extent of the injury is not great, the symptoms are more obscure, and even the uterine action may continue vigorous enough to assist in the delivery of the child. Under such circumstances, the accoucheur may remain in total ignorance of the accident, until it is ascertained either on the removal of the placenta, or after the death of the patient. The part where the rupture usually commences, is at the junction of the cervix uteri with the vagina, either anteriorly or posteriorly. No instance of rupture of the fundus has been witnessed at the Dublin Hospital, and we do not recollect any on record. In nine out of thirty-four cases, the peritoneal coat of the uterus was uninjured, although the muscular substance of the cervix was extensively ruptured; in one case, which had been attended with all the symptoms of the accident, no rupture could be discovered on dissection, and the only lesion was the existence of numerous lacerations of the peritoneal membrane, on the posterior surface of the uterus.

The treatment which may be required of the medical attendant, must depend in some degree on the circumstances of the case. The paramount object is to effect the delivery of the child as speedily as possible, without adding to the danger, already great, of the mother. In some rare cases, the labour being far advanced and the parts well dilated, the child is expelled without assistance, and alive. This happened four times out of thirty-four cases at the Dublin Hospital. Some writers have far too indiscriminately recommended the application of the forceps in cases of ruptured uterus, with the praiseworthy motive of saving the life of the child; but this is a fallacy. From the experience of Dr. Collins and other experienced accoucheurs, it appears that "the child dies shortly after the rupture takes place." Dr. Burns indeed has said, that "the child sometimes lives for hours;" but he has not given any case in point. If we therefore have reason to be satisfied that the child is dead, much time may be lost by employing the forceps, unless the head be so far advanced that it can be readily grasped, and the child quickly extracted. In three of the thirty-four cases which occurred in Dr. C.'s practice, attempts were made to deliver with the forceps, but without success. The perforator and crotchet will be found to be, in a large majority of instances, preferable to the forceps. The uterus must be kept by an assistant as steady and fixed as possible, and the application of the instruments is to be made with great caution and gentleness; else the fœtus may recede, or even escape into the abdominal cavity by the pressure employed. When this last-named accident has taken place, the accoucheur is not, as was wont to be the case, to desert his patient and leave her unassisted. Although the prognosis is most unfavourable, he is still to make an attempt to deliver by introducing the hand through the rupture into the cavity of the abdomen, and bringing down the feet without delay; the placenta is then to be withdrawn, and any portion of intestine, which has become entangled between the lacerated edges, should be cautiously replaced.

Of the 34 cases, two only recovered. In one of these, the arm and shoulder presenting, delivery was effected by perforating the thorax and by bringing down the breech; and in the other, the head being low down, the per-

furator was applied directly to it, and the extraction completed with the crotchet: the rupture was most extensive, and through it a portion of intestines had escaped. Both patients were discharged nearly well in about four weeks after the date of the accident. The latter patient has been twice pregnant since; and both times she has given birth to living children, with the first of which premature labour was induced. The fatal event took place at various intervals after delivery: sometimes immediately afterwards, in other cases not for many hours, or even many days. The latest period mentioned is the 25th day. Two of the children were born alive: four were delivered by the natural efforts; 19 by the crotchet; 7 were extracted by the feet; in two cases, the delivery was effected by lessening the thorax, and bringing down the breech, and in the remaining two, the mode of delivery is not stated.

Dr. Collins has detailed seriatim the history of each of the 34 cases, and described the post-mortem appearances in many of them. The particulars cannot fail to be extremely interesting to the accoucheur, and the information communicated by so experienced and talented an adviser as Dr. C., must give a degree of self-confidence to the young practitioner, when called upon to act under the trying circumstances of rupture of the uterus.

Before quitting this subject, we may briefly allude to a well-authenticated case of that physiological curiosity, "the crying of the child in utero," related by our author. His testimony will be deemed unexceptionable.

"The most extraordinary occurrence in this case was the *respiration* and *crying* of the *child in utero*; both of which were heard, as distinctly as possible, four hours before delivery, the latter at a distance of some yards from the couch on which the patient was lying. These facts were witnessed by myself and assistants, besides several of the pupils, both by stethoscopic examination and otherwise. The head was, at this time, high in the pelvis; the soft parts partially dilated, and the waters but a short time discharged.

The cry was so distinct, that I imagined the child was placed merely under the bed-clothes. When called to witness this truly singular phenomenon, I little credited the truth of what I was told, and confess, had I not been present, I should have remained sceptical.

How forcibly should this fact prove the uncertainty of some of the tests most confided in, as indicative of the murder of new-born infants! It also affords the medical witness in such cases, a salutary caution, in addition to those so ably advanced by the learned Doctor William Hunter on this subject."* 299.

Prolapsus of the Umbilical Cord. The practice of the English and French accoucheurs is strikingly contrasted in their treatment of this accident. We need scarcely mention that the prolonged compression of the umbilical cord in consequence of its premature protrusion, and the consequent interruption to the fœtal circulation, is inevitably fatal to the child. The event of the case will depend on the delay of the delivery. The average mortality among the children, in the cases of prolapsed cord at the Dublin Hospital, is three-

* In a recent No. of the Bulletin Med. de Bourdeaux, a Dr. Barsac relates a very extraordinary case. The crying of the child was heard, we are told, for three days successively, at intervals, in the eighth month of pregnancy, long before labour commenced. The particulars of the report are however not satisfactory.—*Rev.*

fourths of the whole (73 out of 97); whereas, in the Maternité in Paris, it is greatly inferior. This difference is attributable altogether to the very different modes of treatment pursued. In France, the operation of turning is resorted to, whenever there is any great difficulty in the delivery, or any danger incurred by the child—the safety of the mother being often sacrificed for the attempted salvation of her offspring. In this country, we are more chary of the parent's life, and therefore more prodigal, it may be said, of that of the child. None of the mothers in the 97 cases sustained any injury in their labours. It has been very generally remarked that the mortality among the inmates of the Maternité at Paris, is greater than in any obstetrical institution in this country, the proportion of deaths being nearly one in every 24 patients, and, during some years, one in every 12 or 13. "In *one* year (says Dr. C.) a greater number of deaths, by nearly *a half* occurred, than were met with during my *seven years'* residence in the Dublin Lying-in Hospital, where 16,414 women were delivered. Baudelocque reports 700 deaths in 17,308 deliveries; whereas in 16,414 we had 164."

In judging therefore of the propriety of any practice in midwifery by the number of deaths among the children born, we ought to be informed, at the same time, of the mortality among the women. This omission Madame Boivin and other French authors are too often guilty of. Delivery with the forceps, or by turning the child, is resorted to in the French hospitals in almost every case of prolapsed cord. To the forceps, provided always the circumstances of the case and the stage of the labour be favourable to its employment, there can be no objection; but as for the operation of turning, Dr. C. does not hesitate to assert that "the risk to the mother is, in the majority of cases, so great as to forbid its employment; nor do I think the practitioner justified by the circumstances (of the cord being prolapsed), in so greatly hazarding his patient's life."

Such being the difference of opinion among French and British physicians as to the management of prolapsus of the umbilical cord during labour, we cannot be surprised at the difference in the mortality of the children so born.

Before resorting to any manual or instrumental assistance, it is the duty of the accoucheur to try the simpler method of pushing up the funis through the os uteri with the fingers, and of endeavouring to keep it secured above the head by means of a piece of sponge introduced. Unfortunately, in most cases, the cord is again protruded as soon as the fingers are withdrawn. Dr. C. suggests the following method.

"We tried, in a few instances, to return the funis completely into the uterus; by passing a piece of soft twine through a long gum-elastic male catheter, so as to retain the funis exactly at its extremity; and, when thus fixed, a strong copper wire was introduced into the catheter, in order to render it sufficiently firm to carry up the cord; when elevated as far as practicable, by these means, the wire was *withdrawn*, and the catheter retained in its position during the subsequent expulsion of the child. With this contrivance there was not a sufficient number of trials, as it was but a short time previous to my retiring from the Hospital that this expedient was had recourse to. Doctor Evory Kennedy, the present master, will, I am sure, lose no opportunity of testing its utility." 346.

When it is ascertained that the child is dead, how is the accoucheur to act? Is he to allow the labour to be completed by the natural efforts, or

ought he to expedite it, if not far advanced, by perforating the head, and bringing it down with the crotchet? Drs. Denman, Burns, and others, have advised the case to be left to Nature, unless an unusual or dangerous delay occurs; an advice from which Dr. Collins dissents, on the ground that "he cannot see any advantage whatever, in permitting the patient to endure the pain and distress of labour for hour after hour, which must be accompanied with some risk, when, by lessening the head, we can, without the least injury, terminate the labour." He reports twelve cases, where this practice was adopted with great advantage to the patients.

Much yet remains of this valuable work to review. Our limits permit us to do little more than glance only at the other contents. In the interesting chapter on twin births, the author alludes to the well-established but often forgotten fact, that the mortality among women after twin-labours, is considerably greater than after single-birth labours (nearly as 5 to 1), and he inculcates the necessity of more than ordinary attention to the after-treatment, seeing that all casualties, whether convulsions, hæmorrhage, fever, &c. are more dangerous under the former than under the latter circumstances.

The presence of twins has been often detected long before the commencement of labour, at the Dublin Hospital, by the stethoscope, from the sounds of the two fœtal hearts being heard at different times and of different intensities.

In the management of twin-labours, Dr. C. recommends that, if the membranes of the second child remain unbroken, for half an hour after the expulsion of the first child (within this period the second delivery usually takes place), they should be punctured, and a dose of ergot of rye may be administered at the same time, with the view of exciting uterine action. If this be still tardy, and delivery is not accomplished within two hours or so after the expulsion of the first child, we should extract either with the forceps or by turning, as it has been very generally remarked that the second child is likely to be still-born, if left longer than two or three hours unassisted. The placenta of the first child is sometimes expelled in perfect safety, before the delivery of the second child.

There were four cases of triplets in the Dublin Hospital during the mastership of our author. All the women recovered, but more than one-half of the children died within two or three days after delivery.

The chapter on *puerperal fever* is occupied chiefly with the reports of cases, some fortunate and others fatal. These cannot but be interesting and instructive to the obstetrical physician. The morbid anatomy is not given with such minuteness and accuracy as we could have wished. No explicit reference is made in any dissection to the state of the uterine veins or lymphatics, which, (as has been shewn by the researches of Drs. Lee, Tonnellé, Dance, Velpeau, and others,) are so very generally diseased. In every case examined, there was effusion into the abdomen. This effused fluid was either a straw-coloured serum, a sero-purulent matter, or "a bloody serum, with quite a glutinous fluid when rubbed between the finger and thumb." The surface of the intestines and of the uterus was usually coated with layers of lymph, giving rise to adhesions of greater or less tenacity. The peritoneum was invariably, in parts at least, highly vascular and injected.

"The uterus in the great majority was quite natural in appearance; in some it was soft and flabby, and in a few unhealthy matter was found in its sinuses. The ovaries, in numerous instances, had suffered much in structure from the effects of inflammation; being generally much enlarged, and so softened in most as to be broken in pieces by the least pressure."* 398.

The treatment generally pursued by Dr. C. consisted in the repeated application of large numbers of leeches, followed by hot fomentations to the abdomen, in the liberal use of calomel and opium, and in frictions with the mercurial ointment. Venæsection and blisters were occasionally, but not frequently resorted to. When a purgative was required, equal parts of castor-oil and spirit of turpentine were found to be the most useful. Dr. C. alludes, in more than one place, to the extreme danger of unnecessary manual interference with labours, and especially of the introduction of the hand into the uterus, while puerperal fever is prevalent.

"We had several severe attacks (says he) where we were compelled so to interfere, in consequence of profuse flooding or retention of the placenta; yet we were from experience so fully aware of the danger so long as puerperal fever prevailed in the Hospital, it was with the greatest possible reluctance that we had recourse in any case to this expedient." 133.

With some observations on still-born children, and on children dying in the hospital soon after birth, this admirable volume, which has afforded us such copious materials for analysis, is brought to a close. We cannot too highly recommend it to our readers; to the younger practitioner it will be found quite invaluable, as a clinical commentary on the more systematic treatises on midwifery, and the oldest and most experienced may rise from its perusal an abler and a wiser man. The two volumes, entitled "Practical Observations on Midwifery," published a few years ago by Dr. Ramsbotham, senior, have a similar scope and practical tendency to the present one of Dr. Collins. A diligent study of these two excellent works may save the accoucheur many an hour of embarrassment and distress, and perhaps, too, many a long year of unavailing regret for errors which, when once committed, can never be retrieved.

A Treatise on the Chemical, Medicinal, and Physiological Properties of Creosote, illustrated by Experiments, &c. By *John Rose Cormack*. Octavo, pp. 154. Edinburgh and London, April, 1836.

This is a very creditable essay of Mr. Cormack's, and we augur well of its author. The work is divided into two parts and five chapters—in each of which Mr. C. evinces acumen, science, and research. Creosote is now at-

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* "I coincide in opinion with those who consider that the change of structure observed in the ovaries of women who die of puerperal fever, accounts satisfactorily for the sterility not unfrequently observed in young females who recover from this disease."

tracting much attention, and, therefore, this little volume will probably be popular. The most important chemical property of this substance is, doubtless, that of coagulating albumen, on which, no doubt, its antiseptic powers depend. The modus operandi of this coagulation is not exactly ascertained. Its preservation of dead animal matters from putrefaction, has led physicians to expect great things from it in the living body. We hope they will not be disappointed.

"The meats which are intended to be prepared, ought to be immersed in a solution of one part of creosote in a hundred of water. In this solution they should remain from twelve to forty-eight hours, according to their size, when they are to be dried either in the sun or before a fire, and afterwards set aside for six or eight days, at the end of which period they will be found to have acquired the appearance, consistence, smell, and taste of the finest smoked meat. Bullocks' tongues, mutton hams, haddocks, salmon, &c. &c. do well to be treated in this way. The tongues which I prepared in this manner equalled in delicacy of flavour the finest smoked rein-deer tongues so much prized by many epicures, and the haddocks were not inferior to those preserved with wood-smoke at the celebrated Finnan. Before leaving the subject of the domestic uses of creosote, it may be stated, that four drops of creosote added to a gallon of whiskey, impart to it a peculiar flavour, very similar to that well known by the name of the *Peat-reek*. Dealers have long been in the habit of giving the peat-reek taste to whiskey, with a view of making their article pass in the market as the much-prized product of the small Highland stills, by adding to it a minute quantity of the oil procured by the distillation of peat in close vessels. Since creosote has been introduced into this country, it has been substituted for the peat-oil, and is at present extensively used for this purpose, both by dealers and in some private families, as I have occasion to know." 19.

Mr. C. thinks there can be no doubt that bodies, embalmed by means of creosote, would resist the tooth of time as long as the best Egyptian mummies. He dedicates a chapter to this subject, which, however, we shall pass over.

In the 3d chapter of the second part, Mr. C. takes up the physiological effects of creosote, and details several experiments on animals with this substance. The tenor of these experiments proves that our author is a "DESTRUCTIVE," rather than a "CONSERVATIVE."

In the first and second experiments, pure creosote, in quantities of ℥j. in one, and 25 drops in the other, were injected into the jugular and femoral veins of dogs. The action of the heart was suddenly suspended, and the animal died. Other experiments were made, in which creosote, in poisonous doses, was injected into the stomach.

"Its first deleterious action is the production of a powerfully sedative effect upon the heart, and from the rapidity with which this is manifested, it may be said (without using the expression at all in a figurative manner), almost instantaneously to paralyze the vital energies of that organ. In some instances, hurried and sonorous respiration goes on for more than a minute after the heart ceases to beat." 70.

In other experiments, creosote was thrown into the arteries—the injurious effects being much milder than when it was injected into the veins. If, indeed, the dose be not considerable, the animal experiences but little inconvenience.

From various experiments performed by our author, it would appear that

the poisonous effects of creosote and prussic acid are strikingly similar. It is also a curious fact that, by large doses of both these substances, vomiting is excited—while from the same doses, when given with the view of checking vomiting, no good results. Small doses appear to appease vomiting.

"The manner of treating a case of poisoning with creosote ought evidently to be similar to that adopted for the counteraction of the effects of prussic acid, namely, the exhibition of ammonia, chlorine, and other stimuli."

"In medicine, creosote may be used with great advantage as a sedative or anodyne. To produce such effects it is given in diseases of the heart, pulmonary complaints, vomiting, and to allay the pain of cancer, &c. A patient under Dr. Shortt's care in the Royal Infirmary, afflicted with cancer of the stomach, derived relief from pain in ten minutes after taking a dose of fifteen drops. When its sedative or anodyne action is wished speedily, the object is best attained by inhaling its vapours. When creosote is persevered with, in small and gradually increased doses, it acts as a tonic. In general it does not affect the bowels; but in two cases in which Dr. Shortt pushed its use to a considerable extent, diarrhœa, and in one of the instances, decided dysentery were produced." 93.

The effects of creosote on the urinary organs are very capricious. A drop of pure creosote, introduced into the hollow of a tooth, is, our author thinks, the best remedy for tooth-ache that has yet been discovered. The creosote should be introduced by means of a camel's-hair pencil, and some cotton afterwards put into the cavity, saturated with pure creosote. A solution of three or four drops of creosote to the ounce of water is recommended, in burns and scalds, by Berthelot. It is said to arrest hæmorrhage, even from large vessels. It is probable that it might prove a useful styptic where leech-bites are troublesome. In scrofulous, aphthous, phagedenic, and venereal ulcers, it has been found beneficial. Many continental surgeons assert that creosote has proved eminently useful in cancer. M. Breschet bears testimony to this point.

"M. Téalier applied a saturated solution of creosote in water to an open cancer, situated on the breast of a woman, who was suffering most excruciating pain from it; and it was with a view of alleviating this that he employed the creosote. The result is interesting. No sooner had the solution come in contact with the ulcerated surface, than the patient complained of an acute burning pain in the sore, shooting through the right side of the chest, and extending from the head to the very tips of the toes. This continued for an hour, after which the pain entirely ceased, and the patient enjoyed uninterrupted sleep for ten hours." 114.

The same author used the creosote in ulcers of the cervix uteri. The cases, however, are not very satisfactory. The author himself applied pure creosote to lupus of the nose, of three years' standing. The patient expressed no uneasiness, but the disease was ultimately rendered worse, and the remedy was abandoned. We refer to the various statements of Dr. Elliotson and others for further particulars.

MEDICAL COMMENTARIES ON PUERPERAL FEVER, VERMINATION, AND WATER IN THE HEAD. By *John Alexander*, M.D. Octavo, pp. 70. Longman and Co. 1836.

I. PUERPERAL FEVER.

Dr. ALEXANDER is physician to the Manchester General Dispensary, where he has ample field for observation and experiment. The substance of these papers has already appeared in the periodicals of the day—a circumstance that will very much limit the circulation of the present pamphlet.

We will not follow our author through the history of puerperal fever, from Hippocrates to the present hour, as we consider such procedure a waste of time. Our author conceives that much of the discrepancy of opinion respecting the nature and seat of the disease, has arisen from the confounding of different affections under the same head. Accuracy of discrimination is, therefore, of the greatest importance.

"From two to seven days after an accouchement apparently favourable, the woman is sensible of a chill, sometimes amounting to rigor or shivering, over the surface of the body; and complains of a degree of weight, occasionally of pain, over the forehead. Her mind is anxious and irritable; her countenance unaccountably saddened; her utterance, pulse, and respiration, are quickened. She perceives an oppression at the præcordia, together with an uneasy general sensation throughout the abdomen, which is more or less tumid, but not at first particularly painful. There is often observed a singular apathy respecting the child. Upon the state of the various secretory functions being inquired into, we find the cuticular, lacteal, renal, and uterine secretions, all more or less suppressed. Accompanying these symptoms, the collapse of the whole animal system is as remarkable in most cases, as it is sudden. Should these characteristics of Puerperal Fever increase in degree, and assume the malignant or adynamic type, the poor sufferer, in a very short time, sinks into the arms of death. If, however, the character of the attack be otherwise, and the woman's strength prove equal to supporting her through the above state, she is generally attacked by what writers have termed *the second stage* of this complaint. Tinnitus aurium; vomiting of bilious thin coffee-coloured matter, or occasionally of a porraceous saburra, present themselves. The tongue is observed in two very different states, with a pale or very red aspect. There is a severe and constant pain in some one of the abdominal regions; or a pain, of a less acute nature, extensively diffused throughout the distended abdomen, having, in many cases, the peritoneum apparently for its seat. The pulse, in addition to rapidity and smallness, assumes a sharper character. Dr. Blundell says he has seldom found it under 115, unless the disease has been yielding. He has counted it as high as 165 or 170. My experience would rate its *general* frequency at about 120. The secretions continue suppressed, the alvine excepted. Singular to remark, the patient, at this crisis, previously depressed, often becomes sanguine of recovery. Provided the complaint run its too usual course, the ill-fated woman rapidly passes into the *last stage*, recognized by dull eyes with dilated pupil, sharpened nose and hectic flush (as in typhus), more or less complete and sudden alleviation of the abdominal pain, feeble fluttering pulse, involuntary excretions, hiccough, and cold extremities, the usual heralds of dissolution." 10.

The appearances on dissection vary, according to the duration of the dis-

ease. If the patient be cut off early, the post-mortem phenomena will be very indefinite. If the fever runs on for some time before it destroys life, many lesions take place, which, however, can hardly be looked upon as other than the effects, not the causes of the fever. The following is the pathological theory, or the theoretical pathology, of our present author.

"What is Puerperal Fever? I conceive it to be *a depressing affection of the abdominal nerves (as well as, in less degree, of the nervous system generally), strictly sui generis*; of which, from the peculiar nature of their functions, we are unable to take any physical cognizance beyond such as relates to the observance of their morbid influences on the human frame. I apprehend it to be perfectly distinct from an inflammatory affection (its almost universally reputed character), although frequently terminating in, or leading to, one. And for this belief my reasons are as follows:—Physiology has long ago proved that, although the nerves are not the organs of secretion, they superintend that process, as they do the equally important one of generating animal heat. Now, in this peculiar affection of the female economy, what are the symptoms presenting themselves, in what authors term the first stage? They are general chilliness of the whole system, suppression of the several secretions, and diffused uneasiness throughout the abdomen. When to these are superadded the symptoms of pain in the frontal region, uneasiness of the mind, and sudden muscular depression (almost invariable concomitants), we have abundant and, I conceive, conclusive evidence of some morbific influence exerting itself upon the (affirmed) primary seat of the malady—the nervous system. The resulting affection is extremely severe in these cases, because the part more especially attacked, the abdominal portion of that nervous system, is most important in itself; exerts extensive sympathies, and the puerperal condition is peculiarly favourable to the origin and powerful influence of morbific action." 14.

We think these views will, with very little straining, apply to any fever —or, indeed, to any disease. No doubt the nervous system takes the initiative in almost every morbid process in the living machine; but the vascular system is very quickly drawn into the circle of disorder, and must always be taken into account. Dr. Alexander, indeed, admits that "puerperal fever, if it do not rapidly prove fatal, generally merges into an inflammatory affection, commonly termed its second stage."

"The inflammation may attack the peritoneum, the ovaria, the uterus or the intestines, all at once, successively, or be confined to one organ. The particular part attacked has appeared to me determined by circumstances. Should the intestines have been unduly loaded, they suffer; if the preceding labour has been abnormal, the uterus; provided cold has been the excitant, very often the peritoneum; in short, there is great variation in the seat of the inflammation, and hence, it is more than probable, has arisen the greatest cause, as it is the most natural one, of discrepancy amongst writers upon the pathology of Puerperal Fever." 16.

When called to a patient labouring under the disease in question, Dr. A. examines the abdomen, and if the uneasiness be general, and not increased on pressure, the whole of the bowels should be covered with a large bran poultice, thinly laid, but constantly applied as hot as can be borne. To blisters he is decidedly opposed. The bowels he relieves by an enema, containing colocynth and soda. If called early Dr. A. has bled—though not largely—and with apparent benefit—even when there only seemed an inflammatory diathesis—but still more so when there existed actual local inflammation. Our author, following the sentiments of Burns, contends that

puerperal fever is not to be treated like common peritonitis. Calomel and Dover's powder he always found to "act beneficially—often admirably."

"*These medicines must, however, not be exhibited in the usual dose, but given largely; indeed their exact quantity should be regulated* ONLY *by their effects, the practitioner's discretion, and the intensity or mildness of the attack.*" 23.

His favourite and usual aperient, in this disease, has been a combination of oil of turpentine and castor-oil, in equal quantities. When symptoms of sinking appear, spiced wines, burnt brandy, æther, and other diffusible stimuli were given.

We have thus given the sum and substance of Dr. Alexander's brochure, as far as puerperal fever is concerned. With the exception of leeches, which he does not mention, the treatment differs not materially, we think, from that which is generally adopted by most practitioners.

II. VERMINATION.

Dr. A.'s attention was first drawn to this subject, about six years ago, in consequence of seeing a child, five years of age, affected in a most severe degree by convulsions, which resisted every mode of treatment till a lumbricus teres was expelled, when the child sank into a profound sleep, and no more convulsions occurred. No worms were ever passed before or after, though anthelmintics were administered. The cause of intestinal worms is wrapt in impenetrable darkness. They have been attributed to a weakened state of the alimentary canal—to ova carried into the stomach—to a peculiar state of the intestinal secretions (which means nothing)—to gastro-enterite (Broussais)—to equivocal generation.

In respect to treatment, the ascarides are often destroyed and dislodged by aloetic injections, followed by purgatives.

"The symptoms attendant upon the presence of the *cucurbitina*, or flat short worm, are much more numerous, and of a more general character. The nasal and anal pruritus are less perceived, but nevertheless present; the temper is irritable, and the child subject to grinding of the teeth, starting, and low moaning during its sleep. The countenance is of a pasty look; the skin yellowish; the eye dull, and frequently surrounded with a darkish areola; the lips and nostrils are thick, swollen, and apparently œdematous; the breath in a morning is fetid; the abdomen tumid, more or less hard, and, in the umbilical region, frequently painful. A sudden and severe pain at the epigastrium is a common symptom of Vermination; as also are griping pains, suddenly arising and as suddenly subsiding. The child's urine is observed in two states, very plentiful and pale; or, what is much more usual, scanty, thick, and of a milky appearance. The fæcal dejections are extremely irregular; at one time scybalous, at another diarrhœal, but always accompanied by more or less slimy and offensive mucus. This form of disorder is so common in the nursery, that I need not extend its description, but shall proceed to the *treatment* required for its removal.

First, then, as to the child's *diet*.—Fresh vegetables, pastry, sweets, and salted meats should be altogether interdicted. Stale wheaten bread, arrow-root or sago, with milk, should form the evening and morning meal; fresh animal food, such as mutton-chop, beef-steak, or boiled fowl, *in small quantity*, the meridian or noon repast. To these, by way of change, may be added the various animal broths, and a little good rice. It may be—nay frequently is—objected to this

dietary, that the hitherto indulged child will not be contented with it. My answer is (and the mothers's answer should be)—let it fast until it will! The period of abstinence is seldom a protracted, always a beneficial one. In dispensary practice, the cure of verminative disorders is constantly impeded by the parent being utterly unable to procure appropriate food for the child; and, owing to this too common occurrence, we are rendered painfully sensible of the great importance of a regulated diet in Vermination.

Next, as to *medicine*.—It has been my custom to commence the treatment by administering scammony, jalap, and calomel, in small doses, suited of course to the age, every alternate night at bed-time; succeeded, the mornings following, by a moderate quantity of castor-oil. There are two reasons which I conceive render small doses of aperients in this complaint preferable. They have a better opportunity of exerting their alterative effect, by being leisurely passed through the alimentary tube; and, secondly, in the great majority of verminative cases which I have witnessed, the little sufferer has been more or less troubled with partial prolapsus of the gut after defecation—and it is scarcely necessary to add, that powerful purgatives render this local debility a great source of distress. At the same time I fully concur with my esteemed friend and Dispensary colleague, Mr. Stott, in thinking that the *first* purgative should be in full dose, as a free evacuation of the large intestines gives marked relief to the accumulative distention and bearing down, that attend upon these cases. Gamboge, from being tasteless, would constitute an aperient peculiarly adapted for children, but it is a drug which, sometimes, not merely occasions considerable sickness, but signally fails in answering the object we have in view; hence I cannot recommend, as many have done, its adoption. After the first passages have been *daily* unloaded for a week, the spirit of turpentine mixed with castor-oil may next be given with the most salutary and marked effect, not unfrequently removing hundreds of these enemies of childhood at every dejection." 33.

III. Acute Hydrocephalus.

This is defined by our author thus:—"a specific affection of the brain, generally leading to serous or lymphatic effusion." The malady runs through three stages—the congestive, inflammatory, and effusive—to which Golis has added a paralytic stage. The reasoning and the remedies of our author present nothing novel. They are a kind of sensible and judicious medium between extremes.

Lectures on Subjects connected with Clinical Medicine. By *P. M. Latham*, M.D. Octavo, pp. 322. Longman and Co. 1836.

Of all the errors, defects, and deceptions incident to medicine—(and this is taking a pretty considerable range)—there is not one more productive of mischief, misery, and false conclusions, than the want of a systematic and philosophic mode of investigating the nature and seats of disease through the medium of symptoms. We have made far greater advances in pathology than in semeiology. Our merest tyros can trace out the seats (more

properly the *effects*) of diseases in the dead body, while nine-tenths of our veteran physicians go the wrong way to work, in ascertaining the said diseases in the living body!!

In general, the patient is allowed to tell a long tale, which is little to the purpose, or dwell on symptoms which are secondary or unessential, and then a few questions are asked, without order, method, or connexion—after which the guinea is paid, and the prescription is just as likely to do good as harm. Such is the routine, as is well known, in the metropolis and other great cities, where the turnpike-gates of physic are monopolized by a few FARMERS-GENERAL in our profession!

It is more than 30 years ago, that we were struck with the want of method so conspicuous in the investigation of diseases, as cognizable by symptoms in the living body. We then set about a plan for our own private use, and we verily believe that much of our professional success—such as it is—has resulted from the procedure then adopted, afterwards improved by practice. If we give an outline of that plan, we may, perhaps, confer some benefit on our *junior* brethren—for as to our *seniors*, it is too late for *them* to learn, even if they condescend to listen to any proposal from any qaarter.

In many of the acute and inflammatory diseases, it does not require a very minute or systematic plan of inquiry to ascertain the nature of the case. Encephalitis, pleuritis, peritonitis, cystitis, &c. present such striking features, that few can make any very serious mistakes, if they are at all grounded even in the rudiments of their profession. But nineteen-twentieths of the diseases or disorders which present themselves to the medical practitioner, in the existing state of civilization, are of a chronic character, and very difficult to ascertain. It is in these last that the value of *method* becomes conspicuous.

We shall not write a treatise on semeiology in this place, but give a short exposé of our own practice for more than a quarter of a century past. The disorders of organs, whose alterations of structure are not visible or tangible, can be only ascertained by an examination of their own peculiar *functions*, and the *sympathetic affections* which they induce in other organs or structures. We should *first* direct our attention to the *proper* functional disorders, and afterwards to the sympathetic. This order is very often reversed by practitioners—and the secondary effects of diseases attract more of their attention than the primary. Thus, for example, where giddiness, pain, or other affection of the head is complained of, the patient, at the same time, exhibiting symptoms of gastric or intestinal disorder, the cause is at once pronounced to be abdominal, which conclusion is very generally in accordance with the patient's opinions and prejudices. Hardly a day passes, without our witnessing the injurious consequences of this mode of jumping at conclusions.

Among the upper classes of life, we are obliged to listen to the patient's tale, though we generally cut it as short as possible, in order to get at our own plan of investigation. It is usually thus: beginning with the organ of mind, as well as the great nervous source and centre, we inquire first into its corporeal functions—the state of the senses, &c. Then we inquire into the intellectual powers, and determine whether they are impaired or perverted—diminished or excited.

The functions of the spinal marrow, as a continuation of the brain, are

then run over, and they are easily determined by the state of sensation, motion, &c.

The functions of the ganglionic nerves are next to be looked to. Digestion, assimilation, respiration, secretion, and excretion. In this short survey of the chief vital processes, we rarely fail to detect the chief disorder, as connected with one or more of the functions examined. Then it is that we are to direct our investigation specifically to the particular disorder, after having detected other collateral affections to which the patient himself would not, otherwise, have drawn our attention. We were gratified to observe that Dr. Latham had been in the habit of pursuing a similar course, as proved by the following extract.

"The patient being placed before me, I ask him no question until I have learnt every thing worthy of remark which my own eyes can inform me of. His physiognomy; his complexion, whether florid, pale, or dusky; the general bulk of his body, whether large and full, or spare and wasted; the condition of particular regions, whether swelled or attenuated; and of the surface, whether there be any eruptions or sores upon it, and what is their character; and, lastly, the power of locomotion, whether he have free use of his limbs or not.

All these are most important particulars, and we ought to make much of them. There can be no doubt concerning them; they are objects of our own observation, and come to us authenticated by the testimony of our own senses. One step securely ascertained leads to another; and from what we see upon the exterior, we obtain a clue for directing our inquiry to the seat and centre of the disease within. If locomotion be hindered, we look well to the brain and spinal marrow; if there be the livid lip and dusky skin, we scrutinize particularly the condition of the heart and lungs; if the whole body, or some of its parts, be attenuated, we examine well the organs of nutrition.

Having thus learnt all I can with my own eyes, and felt the pulse and seen the tongue, I next proceed, in taking the case, to that further inquiry in which the patient takes a part: and, first, I ask him concerning his general sensations, especially whether he be hot or cold; and I endeavour to learn whether his heat and cold occur under conditions which constitute fever.

Next, I enquire into the state of particular organs; and, beginning with the head, I ask after pain, vertigo, and sense of weight, the sight and the hearing, and sleep and wakefulness. Many of these things are only glanced at, or perhaps passed over altogether, if there be no reason to suspect disease of the brain.

Then, passing to the chest and respiratory organs, I ask concerning pain and cough and expectoration, and the state of the breathing under various conditions of exertion and in different postures of the body; and I learn the force and extent of the heart's pulsation.

These things are hardly dwelt upon, or soon despatched, if there be no suspicion of disease in the chest; but if there be, not all we can learn by simple inquiry is enough to ascertain its nature. The patient must, moreover, be submitted to the process of auscultation. This process, however, in order to avoid interruption, I postpone until other inquiries are finished.

Lastly, proceeding to the abdomen, I ask here also concerning pain and uncomfortable sensations, the appetite, the digestion, and the evacuations, their frequency, quantity, and appearance; and then I ascertain with my hand its form and fulness, the possible enlargement of particular viscera, the effusion of fluid, or the existence of pain upon pressure.

Here the examination of the patient ceases, as to his actual condition; but the history of his complaint remains to be learnt, its origin and its progress hitherto, and its probable exciting cause." 50.

There is more than one advantage in this systematic—we would say scientific—mode of procedure. It secures to the physician the best data for ascertaining the nature of the disease—it impresses the patient with a favourable opinion of the skill and science of the practitioner. A careless and *off-hand* mode of divining, rather than of investigating diseases, may succeed in the hands of an Abernethy and a few others; but it will not generally answer the purpose. And, after all, it is the greatest stigma on the talents and judgment of illustrious individuals. They abused their powers and their reputation, and we have no hesitation in saying, this same *off-hand* routine has sent thousands to a premature grave. We are perfectly indifferent to the anger which this sentiment may engender in the disciples or admirers of the illustrious dead or living. We are conscious of its truth—and we care not what interpretations may be put upon our motives.

Nothing can be more true than the following remark; but we beg to observe that the precept can only be put fully into practice under two particular circumstances:—First, in hospital practice, where the physician can *dictate* to the patient; and, secondly, where the established reputation of the consultant enables him to *dictate* to the private patient, whatever be his rank.

"Perhaps it would seem more in the order of nature, and therefore the best method, to take the history first of all. Formerly I used to do so, but I found it practically inconvenient. If you first learn the existing complaint, you know how much of its previous history you will require to illustrate it; but if you first inquire the history, since you do not yet know what it is to illustrate, you cannot tell how much of it you shall want, and must allow the patient to tell what he thinks fit; and, since every person's complaint is interesting to himself, he is apt to discourse about it rather too much at large, and too little to edification. Therefore it is, that I now always inquire the history last, inverting (if you please) the order of nature; and I take care *to make the patient answer express questions rather than leave him to expatiate at his own discretion.*" 50.

This is good advice, and such as we have long acted on in private practice.

The following passage, too, deserves serious reflection.

"I have always thought that hospitals are not converted to half the good they are calculated to serve as schools of medicine; and I think so still.

I have always thought that, in hospitals, knowledge is perpetually running to waste for want of labourers to gather it; and I think so still.

I have always thought that, in our schools, every mode of lecturing has been unduly exalted above clinical lecturing; and every place where knowledge is to be had, or is supposed to be had, has been unduly preferred to the bed-side; and I continue to think thus.

With respect to clinical lecturing itself, custom has robbed it of its peculiar character, and, withal, of half its advantages and half its popularity. It has been separated too much from the wards and the bedside, and has deviated into a discussion of abstract pathology and therapeutics. There may, indeed, be things which can be discussed with convenience and propriety only apart from the patient; and so let them be: but these bear a small proportion to the multitude of things which can only be learnt at his bedside, and in his very presence.

Here is a hospital containing 500 patients—a wonderful spectacle! Hither resort hundreds of students from every part of the Empire. Here they see what the majority will never see again, after the period of their pupilage is over.

They see collected in one place every variety of disease, and every variety of injury, and numerous specimens of each. What an opportunity of instruction gained, if rightly used; what an opportunity lost, if neglected!

And which is generally the case? Is the opportunity, in fact, generally used or neglected? I speak from my own certain conviction, and I answer, that it is generally neglected. I know that five out of six of those who profess to attend the medical practice of this hospital (and it is the same at other hospitals) never watch a single case of disease through its entire course, during the whole period of their pupilage. I say this with great sorrow, and as a warning to those whose pupilage has yet to begin. This is what I mean by the materials of knowledge running to waste." 31.

The truth of this statement has long been felt and acknowledged. The CHIRURGO-MANIA is as universal at all times as the influenza was in 1834. Every student in London *considers* that he is to be a SURGEON—and every one afterwards *finds* that he is a physician—in nineteen cases out of twenty. What are the consequences? The young practitioner is perpetually embarrassed with the treatment of diseases which he neglected to observe on the great theatre of the London Hospital, whilst his purely surgical knowledge is a granary from which he can draw no grain!

Our author thinks, and justly, that one clinical lecture is worth 50 of those starch systematic sermons delivered to drowsy benches, on the theory and practice of medicine. The fact is, that the curriculum of education is too complicated, and the time too short. There ought to be four or five years dedicated to study before practice is entered upon, in private life.

"Then there are lectures upon botany; lectures upon midwifery, and upon the diseases of women and children; lectures upon forensic medicine. Now, I dare not say that the subject-matter of all these lectures is not of the highest order; and therefore I must not tell the student that *this* knowledge is less important than *that*, and that one lecture he may attend less diligently than another; I must only speak generally upon so delicate a subject, and contrive to intimate my opinion without giving offence. The prudent householder, when he would furnish himself a house, sees well enough that some things are of mahogany, and some of rosewood, and others of ebony and gold. He sees much for beauty, and much for use, and longs, perhaps to possess all. But his question is, 'Can I afford to possess them?' and his answer, 'No, not at present; and I must wait until I can.' So, when there is laid before the student this magnificent furniture of the mind, and he asks himself, 'Can I possess it?' I will answer the question for him, 'No, you cannot at present.'—'But can I ever possess it?'—'Certainly you can.'—'But how?'—'By diligence and by *time*. Your studies will not be limited to the period of your pupilage, and you will know all these things in *time*; but certainly not in the brief space of two or three years.'" 35.

There is a fund of good advice to students in this book; but the principal portion of it is occupied with auscultation. Dr. Latham has simplified the study of this important indication, and properly condemned those minute refinements which are puzzling even the authors of them every day. We shall conclude with one more extract.

"I have met with a frightful affection in children; but what its nature was I could never tell, until auscultation enabled me to unravel it. It commonly passes for inflammation of the lungs. But, when children have got well, they have got well so soon and so entirely, that I could never believe the disease to be pneumonia, although the symptoms seemed to indicate that it could be nothing else.

Last summer I went out of town to see a little boy, seven or eight years of age, whose life was very precious to his family. He was thought to be dying of inflammation of the lungs. I found him raised up in bed, supported by his nurse, and breathing with all his might. His skin was hot; his face flushed; and his chest heaved, and his nostrils quivered frightfully. There was no croupy sound. Whatever the disease was, it was all within the chest. I percussed the chest; it sounded well in every part. I listened: the air entered freely, and reached every cell and vesicle of the lungs; but there was not the least perception of the natural respiratory murmur: a shrill Sibilus had taken place of it altogether. Wherever you applied your ear to the chest, you might fancy you heard the piping and screaming of a nestful of unfledged birds.

But what was this disease? Surely it was inflammation, largely diffused over the mucous surface throughout the bronchial ramifications, but inflammation as yet only in its *first* stage; for the air, as it passed through them, did not mingle with a particle of fluid any where, and the sound it produced was a dry Sibilus only.

But *how* inflammation yet only in its *first* stage? The boy had been already ill four days. Still it might be inflammation in its *first* stage. The boy continued ill two days longer, with the same kind and the same degree of suffering; and then, under the influence of tartar emetic, the fever began gradually to subside, and the dyspnœa to abate. The Sibilus gradually gave way to the healthy respiratory murmur, and he was well again *without expectoration of any kind.* The inflammation began and ended with the *first* stage; and, although it continued with great severity for a week, it never got beyond the *first* stage.

This is an instance which strikingly shows the value of Auscultation in detecting at once the state of things, about which you might go on conjecturing and conjecturing for ever what it *possibly* might be, and not gain the least assurance what it *actually* was.

In adults sometimes, but not so frequently as in children, I have met with the same evidences of acute inflammation widely diffused through the bronchial ramifications, and remaining in this its first stage for days and days together. In the mean time, their mucous surface has still been dry throughout a great part of both lungs, and the ear has continued for days and days together to hear no other unnatural sound but a Sibilus. Convalescence has taken place without expectoration, and the Sibilus has given way, without the intervention of any *moist* sound, at once to the murmur of health.

But such inflammation, after lingering long in the first stage, will sometimes pass beyond it; and the whole mucous surface, that was previously dry, will pour forth an enormous secretion, and the widely diffused Sibilus will be changed into a widely diffused Crepitation. Still the lungs are unhurt beyond the lining membrane of the air-passages, and the patient will get well, if he be not suffocated by the enormous expectoration.

I am speaking of a disease which must be distinguished from asthma, according to the usual acceptation—a disease not habitual to the individual, and of which, perhaps, he has never suffered a previous attack. I am speaking of acute inflammation extending throughout the bronchial ramifications, and reaching, perhaps, the vesicular structure of the lungs, putting on a peculiar form, and affecting a peculiar course; but still of acute inflammation, as further evidenced by the remedies necessary for its relief.

During the last summer I saw a gentleman, who had been, two days previously, seized rather suddenly with feverish symptoms, and with the most dreadful dyspnœa. His lips were blue; he was labouring for breath, and coughing with hard and ineffectual efforts to rid himself of something which seemed to tease the larynx, but no expectoration followed.

Cupping on various parts of the chest (the state of vascular action required that blood should be drawn), and tartar emetic in frequent doses, were the

remedies employed; but in the same state of agony he remained for a week, propped up in bed, striving with all his might to free himself from his oppression, coughing and endeavouring to expectorate, but ineffectually.

What was going on all this time? There was anguish enough for any disease of the most formidable name; for fluid in the pericardium; for extensive hydrothorax; for induration of a whole lung; for stricture at some orifice of the heart. A few years ago, the most sagacious physician could only have guessed at the real state of disease, and probably would have guessed wrong. Such severe dyspnœa, so long continued, without expectoration, would probably have determined his diagnosis to hydrothorax.

But what was the disease? Every part of the chest sounded well to percussion. The heart beat regularly, and with a natural sound, only with too great frequency.

What could it be? There reached the ear from every part of the chest to which it was applied a loud Sibilus. The disease was an inflammation largely diffused through all, perhaps, of the bronchial passages, great and small; inflammation abiding long in its first stage, and limiting itself to one structure.

But in this case the inflammation ultimately passed beyond its first stage; for ultimately there arose an immense expectoration, and so the disease reached a favorable termination." 196.

We regret to observe some ill-natured remarks on certain publications, given as advice to students.

" Mind (says Dr. L.) that you are not betrayed to commit yourselves unwarily to books (especially of modern date) upon *diet* and digestion, upon the liver and the stomach. The public is well understood to have such a relish for reading upon such subjects, that *new motives* have been thus let in for medical authorship, which are not very creditable. Any of *you*, who may feel himself a little sharp and clever, might write such a book to-morrow, with a tolerable chance of *all* its attendant advantages."

Now, as Dr. Latham would not expend powder and shot upon the herd of mere quacks, it is perfectly clear that the above passage is levelled at Paris, Philip, Abernethy, Abercrombie, and Johnson. We leave those above, who are still living, to defend themselves. A word or two in respect to the senior Editor. Dr. L. says to his pupils—" never read any book that bears internal marks of being addressed more to the public than to the profession. They are all bad, and many of them dishonest."

Dr. Johnson's work on Indigestion was *first* published in the 4th edition of his work on Tropical Climates, as Dr. L. may see—a work that surely could not be suspected of being addressed to the public—at least the public of this hemisphere. A few copies of that part were struck off for distribution among his friends; and many of these last advised a separate publication. The result was the sale of eight thousand copies. That Dr. Johnson's practice was increased by this work he does not deny—but that *practice* was not always accompanied by corresponding *emolument*. He can safely say that, in consequence of the said *bad and dishonest* book, he has been consulted by at least five hundred of his brethren on their own account, and without any honorarium. When Dr. Latham tells his sucking pupils that any of *them* might " write such a book to-morrow," he no doubt flattered their vanity, and he certainly is, in some measure, accountable for the swarm of publications that must emanate from the Bartholomew school forthwith—especially after the following piece of encouragement.

"There is not a medical publisher in this town, who would not give you (the sucking pupil) something handsome for a book 'UPON THE STOMACH.'"

Indeed! let them try. If any publisher gives such a pupil "*something handsome*"—or even credit for the paper of such a book, we know nothing of the "*trade.*"

But a more absurd and erroneous statement than the above, was never delivered to a group of gaping pupils by a grave hospital physician. If any such pupil attempted this easy task, *and succeeded*, it could be only by transcribing, *verbatim et literatim*, the work of some other person. Every *original* line that he wrote would be an original error—and if he tried *compilation*, he would be more likely to select the faults than the merits of the authors. But the whole thing is sheer nonsense, and looks far more like a little unguarded ebullition of jealousy, than of judgment.

NOUVELLES RECHERCHES SUR LE RHEUMATISME ARTICULAIRE AIGU EN GÉNÉRAL, ET SPECIALEMENT SUR LA LOI DE COÏNCIDENCE DE LA PERICARDITE ET DE L'ENDOCARDITE AVEC CETTE MALADIE, AINSI QUE SUR L'EFFICACITÉ DE LA FORMULE DES EMISSIONS SANGUINES COUP SUR COUP DANS SON TRAITEMENT. Par *J. Bouillaud.* Paris, 1836.

M. BOUILLAUD is well known to the profession as not only an enlightened and ingenious, but also a most indefatigable physician. His "Clinical Treatise on Diseases of the Heart" was reviewed by us in our last Number; and, from the analysis there given of it, our readers must have perceived that it is a work of no ordinary merit. In it the author dwells at great length upon a fact, with which it behoves both the practitioner and the pathologist to be well acquainted—namely, that inflammatory affections of the heart, as well as of the pericardium, are very generally connected with, or consequent upon, acute articular rheumatism. M. Bouillaud, while urging with earnestness the verity of this connexion, uses, it is true, expressions at which the British reader can scarcely refrain from smiling—claiming for himself the honor of having been the first to discover it, and wondering how it happened to escape the notice of the many observant physicians who had previously treated of rheumatism.

"I venture," says he (in the preface to the work before us), "to announce as a discovery worthy of some attention, the almost constant coincidence with violent acute articular rheumatism of inflammation of the lining membrane of the heart *(endocarditis)*, or of *pericarditis*, or of both conjoined—*endo-pericarditis*. This fact, which the observations of each succeeding day only serve to confirm, is one of such importance, that it constitutes, to a certain extent, a real revolution in the history of acute articular rheumatism. It is not surprising that there have been found some to contradict it: such is the fate of all new and important truths. But I hesitate not to predict that, ere long, men will fail to comprehend how a fact of such frequent occurrence could have eluded the attention of the many labourers who have preceded us in the field of observation."

The state of the profession in France may, perhaps, justify in some measure, though certainly not altogether, the claims to discovery here put forward by M. Bouillaud; but one cannot help feeling surprised that so well-informed a physician should be ignorant, that the frequent occurrence of pericarditis and other affections of the heart, in connexion with acute rheumatism, has been universally recognized by British practitioners ever since their attention was first directed to it by Sir David Dundas. In none of our later systematic works on medicine is the subject passed unnoticed; in our "Cyclopædia of Medicine," it is ably and minutely discussed; and the pages of our periodical press afford incontestable proof of the importance which we attach to it. Yet M. Bouillaud refers only to the work of Dr. Hope, whose brief remarks on the subject he quotes, declaring, at the same time, that he was completely ignorant of them until after he himself had made the discovery. He animadverts, with reason, upon an assertion of Dr. Hope—that the patient almost always falls a victim to the immediate effects of the disease, when violent, and that, even then, it is extremely obscure in its symptoms, as well as insidious in its progress. Such a statement we hear very frequently made, and yet nothing, we feel assured from experience, can be more unfounded. It may be difficult, if not impossible, to diagnose positively, in every case where it exists, mere effusion of serum into the pericardium; but to the expert physician, even the slighter degrees of inflammation of that sac are, we maintain, always discoverable. As to active inflammation of the pericardium, that is attended with symptoms so violent, and at the same time so characteristic, that we wonder how any man, possessing eyes and ears, can ever fail to satisfy himself of its existence.

Yet there is one point of view in which M. B. may, not altogether without reason, be regarded as a discoverer. It has been the general, if not the universal custom, to look upon pericarditis or endocarditis (this very appropriate name is of M. B.'s own coinage) as merely an *accidental occurrence* during the progress of rheumatism, or, at most, nothing more than the result of a *metastasis*, or *transferred* morbid action. M. B. on the contrary, has satisfied himself that both these affections "constitute, in some measure, *natural elements of the disease*, which, regarded in a juster and more comprehensive point of view, consists in inflammation of the fibro-serous tissues in general." This observation merits, in our opinion, the greatest attention, for, by representing inflammatory affections of the heart and pericardium as constituent elements of rheumatism, and not merely as accessary and contingent events, it must lead practitioners to be more suspicious of their existence, and, by detecting them earlier, to treat them more successfully. M. B. avers that endo-pericarditis exists in fully one-half of the individuals affected with violent acute rheumatism; and we are inclined to think that he does not over-rate the proportion. The affection may exist in different degrees of intensity, and, *when the symptoms are not very violent*, it is not unfrequently overlooked by *cursory* observers. If, indeed, we were not afraid of startling our readers, we would go much farther than even M. B. has done, and say that, in *every* case of acute rheumatism, there exists a greater or less degree of inflammation, or—if that term be too obnoxious—of irritation in either the covering, or the lining membrane of the heart, or in both together. In proof of this statement, we would appeal to the pulse in rheumatism, which we have always found to be different from

what it is in any other disease. This is new ground, and we are not without our fears of being charged with fancying distinctions, too fine-spun to be appreciable to other men's senses.* But we would willingly undertake, by the examination of a single case of acute rheumatism, to convince any physician of ordinary tact and power of observation, that the peculiarity of pulse to which we here refer is a thing of real existence, and not an imaginary creation of our own. We have repeatedly, in hospital, directed to it the attention of our medical friends, and we do not remember a single instance in which any of them failed to recognize it. It is much more easily distinguished than described, but the epithet *fleeting* is, in our opinion, the most appropriate which can be given to it. It throbs against the finger strong and full as in other inflammatory affections, but instead of continuing its impulse for an appreciable time, it flies onwards with the rapidity, as it were, of lightning. It differs from the rapid pulse produced simply by excessive loss of blood, in the circumstance of its being *more fleeting*, and in the occurrence of a longer interval between the several pulsations. It is also, as might be expected, much firmer, and much less compressible. It invariably attends upon the developed stage of acute rheumatism, whether bleeding has been practised or not; and by it alone—without a single question being put to the patient—without the slightest examination of his joints—a practitioner who has attended to the symptom in former cases, may be able to specify with confidence the nature of the affection. It is not always accompanied by a bellows-sound of the heart, although this is of much more frequent occurrence than is generally supposed, and may, by the stethoscope, be very often discovered to exist, when no pain in the region of the heart is complained of, and when the respiration, unless noted carefully, is not observed to be unnaturally short and hurried. We have been led to this digression by our conviction, that the peculiar state of pulse on which we have so much insisted, being, as it is, constantly present in acute rheumatism, and arguing, as it does, a highly irritated state of the heart, corroborates strongly M. B.'s notion respecting the *original* and *independent* affection of this organ.

Let us now return to M. B.'s treatise, from which we hope to glean for our readers many useful as well as interesting observations. The work is divided into six chapters, of which the first treats of the "law of coincidence of *endocarditis* and of *pericarditis* with acute articular rheumatism." In the remaining five chapters are discussed the symptoms, progress, duration, termination, seat, pathology, causes, nature, and treatment of acute rheumatism. We shall confine our attention, in a great measure, to the questions contained in this latter group; for the subject of the first chapter, having already been discussed in our author's "Treatise on Diseases of the Heart," was considered by us in our *critique* of that work, contained, as we have mentioned above, in our last Number.

As an apology, if any be needed, both for M. B. and ourselves, we think the following quotation not altogether inappropriate.

"It would at first sight (says our author) appear, that no subject can well be more trite and more exhausted than the history of rheumatism in general, and of acute rheumatism in particular. Such, however, is far from being the case, and

* We must not be understood to go quite so far as our Reviewer.

I venture to hope that the researches which form the subject of this work will be found deficient neither in interest nor in novelty." 1.

We shall pass over M. B.'s description of the symptoms of acute rheumatism, inasmuch as it contains nothing particularly worthy of notice. The delineation of them drawn by the master hand of our countryman, Sydenham, is so true to nature, that, for our own part, we feel but little inclined to look upon any other.

The truth of the following remark will, we believe, be assented to by every physician of experience.

"In general, all other circumstances being equal, the fixedness and persistence of acute articular rheumatism are *inversely* proportionate to the number of articulations affected." 71.

Our author thinks that the rapidity with which rheumatism shifts from one joint to another, is greatly exaggerated.

"The pain may, it is true, readily disappear, with or without the establishment of pain in any other joint, but it is not always so with the effusion, which, however, constitutes the essential element of the disease. The pain is, indeed, but a kind of neuralgia, symptomatic of the articular affection, as the stitch in the side is of pleurisy; and in both cases it is contingent rather than essential, for the pleurisy may exist without pain, as may also rheumatism of the joints, which is, in fact, nothing else than *a pleurisy of the synovial membranes.*" 72.

The peculiar manner of expression above made use of by M. Bouillaud, may convey very forcibly his meaning, but it is, at the same time, far from being correct; and we can foresee many disadvantages which would result from a general indulgence in it. The term pleurisy carries with it so obviously the idea of the pleura, that no disease which is not seated in that membrane, can with any degree of propriety be denominated by it. The most striking analogies in the symptoms, progress, or causes, are not sufficient to warrant such an abuse of language. We insist upon the point the more, because M. B. is rather prone to such a deviation from correct diction. In his present work, there is copied from his "Treatise on Diseases of the Heart," a passage in which he says that "rheumatism is, so to speak, nothing else than a *pericarditis* of the joints."

The mobility or vagabondism, if we may so call it, of rheumatism, has been urged by several French writers, against the notion of its being an inflammatory disease; and it is evidently with a view of meeting this objection, that our author endeavours to establish for it a character for greater stability and persistence. He might, however, have chosen many much more satisfactory arguments, for we can testify that, in rheumatism, it is no very uncommon occurrence for several ounces of fluid to be removed from the knee-joint in one single night. M. B. would appear, indeed, to be aware of this fact, for he qualifies his denial of the rapid absorption of the fluid, by saying that it does not "*always*" take place. Further on he adopts a much better line of argument, insisting upon the nature of the symptoms—the pain, heat, redness, and swelling; upon the co-existence of *endocarditis* and of *pericarditis*; upon the formation of pus in the joints; upon its analogy with pleurisy, bronchitis, &c. in which, as in rheumatism, a moderate degree of inflammatory action gives rise to a thin, serous secretion, and may then speedily subside, while a more intense inflammation produces pus and is of much longer continuance. Rheumatism, moreover, owes its development to the

same atmospherical conditions as the diseases above detailed; it yields, like them, to extensive venæsection, judiciously prescribed; and the blood drawn in it presents the same buffy coat, the same cupped, firm, and glutinous coagulum. Such M. B. asserts is the nature of the blood even when it is drawn by cupping, as he found, among other instances, in the case of a pale, exsanguined person who had laboured under chronic rheumatism for five or six years, but in whom the disease had, about a fortnight before, assumed a subacute character. These qualities of the blood have been insisted on by many authors both ancient and modern. M. B. refers to Sydenham, Stoll, and Roche, and we may further quote the authority of Baglivi, who goes so far as to assert that such a state of the blood is actually the cause of the disease.

"For there prevails," says he, "at Rome a species of rheumatism, or disease attended with pains wandering over the whole body, *which undoubtedly, owes its origin to an inflammatory diathesis of the blood.*"*

The same doctrine, we recollect, is maintained by Browne in his *Elementa Medicinæ*, in which he states that, unless as a consequence of external injury, there never does exist such a thing as a purely local inflammation, the whole mass of circulating blood being invariably altered from its natural condition. Baglivi further mentions that a corresponding change in the blood exists also in pleurisy, and he argues that

"On the ground of this analogy alone, we may safely reason from the treatment of the one disease to that which would be proper in the other, so as in fact to find that the same remedies are applicable to both.† Sir John Floyer would appear to have entertained the same opinion, for he alleges that 'pleurisy is nothing else than a kind of rheumatism.‡'" 21.

Our author scouts the idea of rheumatism being an *essential* fever, and he meets the objection of those who urge that the febrile symptoms sometimes continue after all affection of the joints has subsided, by insisting on the important fact that in such cases the heart or its capsule is invariably affected.

"The symptoms of such affection are so well marked, that they may be detected by any, even the least experienced, eye; but some men," M. B. adds, "are not less clever in finding out what does not exist (the *essentiality*, namely, of rheumatic fever) than they are apt to pass unnoticed that which is not only real but obvious." p. 13.

If the inflammatory nature of articular rheumatism be further questioned on the ground that its symptoms and ordinary termination differ from those of traumatic inflammation of the joints, M. B. would remind the objectors, that sufficient reasons for the differences may be found in the wider diffusion of rheumatism, which, attacking at once several joints, cannot, of necessity, affect any individual one so intensely as, if strictly confined to that one, it would most probably do; also, in the peculiar state of the blood above referred to which, indeed, may be the cause of such wider diffusion. This view of the subject M. B. confirms by a positive fact.

"When rheumatism, becoming chronic, is *fixed* in a joint for several months, it does actually produce the same lesions which simple and undoubted inflammation occasions. The *white-swelling* of rheumatic joints presents on dissection

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* Opera Omnia Medico-Practica, &c. tom. ii. p. 157. Lipsiæ, 1828.
† Loc. citat. ‡ History of Cold Bathing, p. 10.

anatomical characters precisely similar to those which characterize white-swelling when the consequence of a wound." 109.

The above argument is not altogether free from fallacy. Dr. Barlow, in his able article on rheumatism in the *Cyclopædia of Medicine*, has shown that, after the subsidence in a joint of the specific action of rheumatism, there may be set up in it one of inflammation, which shall require to be treated as such, and which, if not controlled, may lead to the ordinary results—suppuration, ulceration, &c. In this manner are we inclined to account, in part, for the circumstance of rheumatism having been so often reported, by authorities of unquestionable veracity, to have terminated in the formation of pus. But at the same time it is a notorious fact that many of the cases in which such a termination is recorded, had really nothing whatever of rheumatism in their nature. In proof of this remark we would refer to a case related by Morgagni in his 57th Epistle, which, although styled rheumatism by Dr. Good, does not seem to have been considered by the author himself as such; to one related by Tissot in his "*Avis au Peuple sur sa Santé*," Cap. xi.; also to a case copied into the third volume of the "London Medical Repository" from the "*Bibliotheque Medicale*," which is reported as rheumatism, and in which four pints of sanious pus collected over and between the left gastrocnemii muscles. After a perusal of the details of this case no one, we apprehend, can for an instant doubt that it was one not of rheumatism, but of typhoid fever complicated, as such fever often is, with the formation of an abscess.

These remarks we feel assured are not only justified, but called for, by the loose and careless manner of authors, and reporters of cases, in assigning the name of rheumatism to a great number of affections which are really very different in their nature from that disease. This error is particularly common among Continental writers; and with the French it has, we are inclined to think, been not a little promoted by the retention of the old generic appellation, *arthrite*, which, if it conveyed a distinct idea for each separate and different affection that is usually classed under it, would be the most expressive term in existence. But a common name need not, and very often does not, convey the idea of more than one common quality, and we may be accused of unfairness in objecting to *Monsieur Arthrite*, that he is, in this respect no better than his neighbours. We maintain, however, that he is not quite so good as most of them, for they in general communicate the notion of some common and important *quality*, while he points only to a common *seat*. If all our nosology were arranged upon this principle, it would be beautifully simple, indeed, but we question whether it would have any thing else to recommend it.

Yet we are not prepared to assert that true inflammatory rheumatism *never* ends in suppuration;—what we maintain is, that such a termination is infinitely less frequent than, from the statements contained in books and periodical journals, one might be led to imagine. That there is something specific in the nature of rheumatic inflammation we firmly believe, but notwithstanding this we deem it not impossible, that the same thing may happen to it that we know happens to simple pleurisy and peritonitis, in which the effusion is ordinarily serous, but may become puriform, provided the inflammatory action rise in intensity, or contine long. M. B. to prove that such is actually the case, quotes the authority of Stoll, of Chomel, (whose cases demonstrate the fact though he himself denies it), of Moreau, Piorry, Raciborski,

Cruveilheir, &c. and he cites two cases which fell under his own observation. Of one of these, as it is interesting, we shall give a brief detail.

The patient, a young woman, had laboured under very acute articular rheumatism, and had been in hospital a fortnight when she died of a pleurisy, the existence of which was not discovered until the body was opened.

"The left knee-joint was red and dry, and the condyles of the femur were eroded; there was no pus. The right knee-joint was filled with genuine pus, mixed with synovial fluid. A portion of the crural vein near the joint contained pus, mixed with a reddish sanious fluid. Throughout the rest of its extent, including branches as well as trunk, it was filled with coagulated blood, and in several points a certain quantity of pus was recognized. Its sides, especially towards the knee, were thickened. The internal membrane was of a violet colour. The femoral artery was healthy, but the crural nerve was redder, and apparently larger than natural." 83.

These morbid appearances suggest many important considerations to which, however, we have not time to attend.

The several facts brought forward by M. B. are sufficient, he thinks, to demonstrate that the true seat of articular rheumatism is the synovial membrane, and that the ligaments and parts exterior to the joints are only secondarily affected. This opinion, we think, is strengthened by, at least, one of the cases contained in Sir B. Brodie's valuable work, in which, after rheumatism, a quantity of bloody serum was found in the joints. As we have not a copy of the new edition at hand, we are unable to give the reference. The synovial membrane has also been found covered with coagulable lymph in consequence of an attack of rheumatism. In the second volume of the "Dublin Hospital Reports" there is given, by Mr. M'Dowel, an account of the dissection of a woman who had been attacked, three weeks after delivery, with acute rheumatism, during the progress of which, peritonitis occurred and carried off the patient. "In the knee-joints the entire of the synovial membrane internally was covered with lymph, closely adherent to it, and in its appearance precisely similar to that effused on the peritoneum. In each articulation there were about two ounces of serous fluid, also resembling that found in the abdomen; bands formed of lymph stretched across the articulation in several places. On raising the lymph from the membrane, the latter did not present the vascularity which was exhibited by the peritoneum. The cartilages and bones were sound. The surrounding fibrous structure was unaltered."

We have dwelt thus at length upon the pathology of rheumatism, because we conceive it to be a subject of great importance, and one which is yet far from being sufficiently investigated.

The average duration of acute articular rheumatism is generally stated at from forty to fifty days, but M. B. assures us that, if his peculiar plan of treatment be strictly followed, the disease will, in general, be completely subdued by the end of the second week, often at a much earlier period. That plan and its merits we shall describe in its author's own words.

"The genuine specific for acute articular rheumatism, its *cinchona*, if I may so speak, is the antiphlogistic treatment, and above all, bloodletting, which is the prince of antiphlogistics." 123.

But in order that bloodletting shall produce all the effect of which it is capable, not only must it be sufficient in quantity, but the intervals at which it is repeated must be properly timed. Nor is it unimportant whether the

abstraction of blood be local or general, or whether both of these modes be combined. From defective attention to these very necessary particulars bloodletting has not hitherto been found so efficacious a measure in the treatment of acute rheumatism as it would otherwise have been. M. B. proposes, therefore, the following plan, or, as he calls it, *formula* for the abstraction of blood, which, he says, is essentially the same as that formerly recommended by him in pneumonia, as well as in pericarditis.

"The patient, on the evening of his admission into hospital (provided he be strong, and have a good constitution), is bled to 16 ounces. From very plethoric patients 20 to 24 ounces are sometimes taken; but 16 ounces is the common dose.

Second day.—Two bleedings from the arm of from 12 to 16 ounces each, and in the interval between them, leeching or cupping (the latter by preference) to the extent of 12, 16, or 20 ounces. The cupping-glasses are applied around the affected joints, or to the præcordial region, if, as generally happens, the heart is implicated.

Third day.—One bleeding from the arm, and the abstraction of 12 to 16 ounces of blood by cupping from the joints, or from the region of the heart.

Fourth day.—The fever, pains, swelling, &c. have sometimes completely subsided by this day, in which case the further abstraction of blood is not practised; but should they still exist, the patient is once more to be bled to the extent of 12 or 16 ounces.

Fifth day.—Generally speaking the disease, by the fifth day, is in full progress towards resolution. Sometimes, however, the fever may still continue well marked, and in that case venesection to 12 ounces, or cupping to the extent formerly stated, becomes advisable.

From the sixth, seventh, or eighth day, the patient convalesces rapidly, and he may now begin to take food.

Should a relapse take place (which will sometimes happen, though not perhaps so often as after the common methods of treatment), bleeding may be again necessary. Thus, in a case in which the disease had been cut short by four bleedings, the patient relapsed, and before recovery took place, it was found necessary to bleed him again five times.

Slight relapses may be treated by emollients, abstinence, baths, anodynes, &c. the disease wearing itself out in a few days.

To escape relapses it is of paramount importance that patients guard most carefully against the slightest breath of cold." 135.

We cannot represent in too strong language the necessity of attending to this caution. We have known many lives lost, both in public and in private practice, by patients lying or sitting in the line of a draught of air from some contiguous door or window. There is no other cause which has any thing like so much influence in concentrating the disease upon the heart, or in rekindling it there, when, by proper treatment, it has been nearly extinguished. For a long time past we have been in the habit of ordering every rheumatic patient who has shown the slightest symptoms of heart affection, to have flannel immediately put on next his skin, and to be kept, as much as possible, in a uniform well regulated temperature. The amount of evil which we have avoided by this simple precaution, if it could be calculated, would, we feel assured, appear incredible.

The only auxiliaries to the plan of treatment above detailed which M. B. employs, are abstinence, emollient drinks, blisters, the application of compresses smeared with mercurial cerate, and so arranged as best to favor re-

solution, emollient cataplasms, baths, opium in moderate doses, and exhibited either internally or by the endermic method.

Sydenham has given a formula for bleeding in rheumatism, and so also has Roche, but neither of these, M. B. asserts, is active enough, nor do the bleedings prescribed by them succeed each other at sufficiently short intervals. Herein, indeed, rather than in quantity, consists the difference between our author's peculiar plan, and those of all other physicians.

Eighty-four cases of rheumatism treated by our author from the month of September, 1831,* till the same month in 1835, have been published in his clinical reports contained in the *Journal Hebdomadaire*. They all terminated favorably, with the exception of a single case, which occurred before he began to practise his peculiar method of bloodletting. Of 28 of these cases we have in the work before us either a detailed or a tabular report, from which it appears that the mean duration of the disease was nineteen days nearly, (the mean time of treatment was considerably less than this, but there are not sufficient data to calculate it with accuracy); the mean number of bloodlettings 3½; the mean quantity of blood by venesection alone 45½ ounces; the mean number of leeches applied, 26 nearly. In only four out of the 28 cases does cupping appear to have been practised, but during the last two years, M. B. has more frequently had recourse to that measure, preferring it to leeching. M. B. says that, although on an average rheumatism will be cured, as pneumonia also is, by the loss of from four to five pounds of blood, yet that, now and then, it may be necessary to withdraw six, seven, or eight pounds. In one of the cases above referred to, the patient lost ninety-six ounces. In one or two cases general bloodletting was not practised, the symptoms, which were not very severe, giving way to the application of leeches alone, or of leeches together with cupping-glasses.

We shall now, to give a clearer idea of M. B.'s method of treatment, copy, in a condensed form, the details of a single case.

The patient, a gunner, aged 28 years, nine or ten days after a fatiguing journey, during which he had been exposed to wind and rain, was attacked with rheumatism; and, on the 19th of December (five or six days later), he was admitted into the clinical wards. Previously to this, no treatment had been instituted.

20th. Joints of lower extremities, particularly knees, violently affected; those of upper extremities very slightly so. Trifling swelling of knee-joints, but no redness; motion intolerable; countenance flushed and animated; pulse 96 to 100, strong and full; skin covered with a clammy disagreeable perspiration; sleeplessness, thirst, loss of appetite; tongue white in centre, red at tip and along margins. Ordered to be bled to 16 ozs., the operation to be repeated during the day and to the same extent; infusion of elder-flowers and wild poppy, cataplasms, lavements, abstinence.

21st. Pains of lower extremities greatly relieved—those of upper aggravated; wrists and hands violently affected, elbows and shoulders less severely so. Venæsection to 16 ozs.—12 leeches to each hand. Contin. cætera.

22d. General relief—to be again bled.

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* Some of these cases are referred to in our Number for April, 1835.

23d. Patient free from pain, and comfortable; fever has disappeared; pulse 80. Venæsection conditionally.

At 8 o'clock in the evening, pains of wrists and shoulders recurred; but no blood was drawn, and by morning they had subsided.

24th. Pulse still full, strong, and hard, 80 to 84 in the minute. To give the disease a finishing blow, venæsection to 12 ozs. was again ordered. Chicken broth permitted.

25th. Patient quite well. Diet increased.

No relapse took place, and on the 5th January the patient went out completely cured.

In this case, venæsection was practised five times, and the blood drawn was invariably covered with a greyish-white, firm, buffy coat. With each bleeding the proportion of serum increased. The same thing usually occurred in other cases.

M. B. refers to two cases, in which his peculiar plan of treatment was said to have been tried, without producing the decisive effects attributed to it by its author; but he subjoins reports of them which testify plainly, that although in each a large quantity of blood was drawn, yet that the intervals between each separate abstraction of it were greatly too long. He insists that, to give his method of cure a fair trial, it is necessary to enforce it faithfully and rigorously. Let but this be done, and he appeals with confidence to the result. Now such a condition, it must be granted, is nothing more than reasonable; and as the question is one of great importance, we should rejoice to see it brought to the test of experiment. Few, however, we fear, will be found bold enough to undertake the task, and still fewer to execute it; for there have, of late years, prevailed strong prejudices against bleeding largely in rheumatism. These prejudices may be traced, we think, to the recorded opinions of some of our standing authorities in medicine. Drs. Cullen, Fordyce, Heberden, Haygarth, Joseph Brown, and many others, concur in representing profuse bloodletting in rheumatism as not only inefficacious, but even detrimental. Haygarth and Brown state in positive terms, that it favors, and has often occasioned, fatal metastasis to the heart. There is, indeed, in the work before us an indirect admission, upon which those who find fault with M. B's practice are very likely to lay a fast hold. M. B. avows that it was not until after he had adopted his peculiar system of bleeding largely and at short intervals, that he discovered *endocarditis* and *pericarditis* to be the ordinary concomitants of acute articular rheumatism. This statement, we own, staggered us a little, although it has for a long time past been our conviction—a conviction founded on no inconsiderable experience—that the danger of bleeding largely in acute rheumatism has been, to say the least, greatly exaggerated. We have seen, at any rate, *pericarditis* display itself in numerous cases of rheumatism, in which not an ounce of blood had been drawn. Our opinion, therefore, is far from being unfavourable to M. B.'s plan of treatment, which merits, we think, an impartial trial. The question, we repeat, is a highly important one, and, like all other questions in practical medicine, can be decided only by oft-repeated observations, carefully made and faithfully reported.*

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* The Reviewer, who is a talented hospital physician, entertains, in the view of the senior Editor, too favourable an opinion of M. Bouillaud's plan of treat-

LECTURES ON THE NERVOUS SYSTEM AND ITS DISEASES. By *Marshall Hall*, M.D. &c. Octavo. April, 1836.

As it would be impossible to give a review or analysis of the volume of Lectures just published by Dr. Hall, we shall only extract the following critical observations on Dr. Hugh Ley's work, reviewed in the present Number of this Journal.

" It has been recently attempted, by Dr. Hugh, Ley, to found the pathology of this interesting disease upon observations, such as that adduced by Dr. Merriman; but I think, unsuccessfully.

In the first place, as far as my memory and judgment serve me, the cases adduced, to suport this view, are not cases in point, but, in reality, cases of other diseases.

Secondly, supposing pressure upon the pneumogastric to exist, it would induce totally different phenomena from those actually observed in this disease; and it would not explain the *series* of phenomena which actually occur in it: for,

Firstly: Such pressure would induce simple *paralysis*.

This would, in the first place, affect the recurrent nerve, and the dilator muscles of the larynx; it would induce a partial but *constant* closure of that orifice —a permanent state of dyspnœa, such as occurred in the experiments of Legallois, or such as is observed to be excited in horses, affected with '*cornage*' or *roaring*, as described by M. Dupuy, in his treatise 'De la Fluxion Periodique,' 1829, p. 117, &c.

Secondly, it would induce paralysis of the inferior portion of the pneumogastric, with congestion in the lung or lungs, and the well-known effects upon the stomach, of the division of this nerve.

Secondly: The disease in question, on the contrary, variously designated '*peculiar convulsion*,' '*spasm of the glottis*,' &c. is obviously a *part* of a more general *spasmodic* affection, and frequently, indeed most frequently, comes on in the midst of the first *sleep*, in the most *sudden* manner, receding equally *suddenly*, to return, perhaps, as before, after various intervals of days, weeks, or even months. Very unlike paralysis from *any* cause!

Thirdly: It not unfrequently involves, or accompanies, as I have said, *other* affections, *indisputably spasmodic*, as distortion of the face, strabismus, contraction of the thumbs to the palms of the hands—of the wrists, feet, toes—general convulsions! sudden dissolution! a series of phenomena totally unallied to paralysis.

Fourthly: Indeed, the larynx is sometimes *absolutely closed*—an effect which *paralysis* of the recurrent nerve, and of the dilator muscles, *cannot* effect.

Fifthly: Paralysis from the pressure of diseased glands would be a far *less curable* disease, a far *less variable* disease, a far *less suddenly fatal* disease, than the croup-like convulsion.

Sixthly: Almost all recent cases are at once relieved by attention to three or four things: viz. the state, 1, of the *teeth*—2, of the *diet*;—3, of the *bowels*; and, 4, by change of *air*;—they are as obviously produced or reproduced by the agency of errors in one or more of these.

Seventhly: In fact, the croup-like convulsion is a *spasmodic* disease, excited by causes situated in the nervous centres, or eccentrically from them; in a case of spina bifida, already mentioned, a croupy and convulsive inspiration was induced by gentle pressure on the spinal tumor; in cases from teething, the attack has

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ment in acute rheumatism. This favourable opinion is, therefore to be considered as on the authority of the individual Reviewer only.—J. J.

been induced and removed many times, by *teething*, and by freely *lancing the teeth*; by crudities, and by emetics and purgatives; by change of air, &c.

Eighthly: There is a series of facts which prove the connexion of this disease with other forms of convulsions in children, and with epilepsy in the adult subject.

Ninthly: In protracted cases, congestion and effusions within the head occur as *effects* of this disease.

Lastly: Innumerable cases of undoubted croup-like convulsions have occurred, in which no enlarged glands could be detected in any part of the course of the pneumo-gastric nerve.

But if the contiguity of enlarged glands with the pneumo-gastric have any concern, in any case, in causing this disease, I believe the action is one totally different from that assigned, and not suspected, by the author of this opinion. It is obviously an action upon this nerve, as an *incident, excitor* nerve, and not as a mere *motor*, or *muscular*, nerve.

I must here detail an experiment upon the pneumogastric made by Mr. Broughton, but hitherto unapplied to any question in physiology or pathology. The pneumogastric was laid bare in a donkey, and pinched *continuously* by the forceps; the animal made a sudden act of inspiration and of deglutition. The nerve was divided: the *upper* or *incident* portion of the nerve was pinched with the same effect as before; the lower extremity of the nerve was pinched without any effect.

I may here, also, refer once more to the interesting experiments of M. Dupuy, p. 130, &c. for a similar fact.

In this manner, I conceive, *irritation* of the pneumo-gastric in the neck *may* have induced the croup-like convulsion. *Pressure* upon this nerve, inducing paralysis of its remote extremity, *could not* possibly induce the phenomena in question.

It would be difficult to adduce a more convincing proof of the *pathological* and *practical* importance of the views of the nervous system, which I am laying before you.

I venture to *suggest* another view of this matter as nearer the truth: viz. that this disease is induced through the *fifth* pair of nerves in *teething*, the *pneumo-gastric* in indigestion, and *spinal* nerves in constipation, as parts of the excito-motory system. The view itself *points* to the most useful and efficient *remedies*, and this is highly important: it points to the teeth, indigestion, and constipation, as *causes*, and to the well-known means of removing them; it points to the important objects involved in change of air, mental quiet, &c.

If, instead of the popular remedy (the warm bath), the *gum-lancet*, and the full warm water *enema*, were *instantly* administered, many little patients would be saved from the effects of this terrible disease. The diet should be barley-water only.

The respiration is actually arrested by closure of the larynx, there are forcible expiratory efforts only, or principally, in the actual convulsion. This need scarcely be described: the eyes are distorted from their axes; the face is drawn into horrible forms; the mouth is filled with foam; the body and the limbs are variously and shockingly convulsed. The countenance is livid with venous blood, affording an index to the condition of the brain. There is perfect coma, sometimes long-continued. Or there may be sudden dissolution!

Sometimes a more transient and partial convulsive movement occurs, like an electric shock. In one deeply interesting case, such a convulsive affection was sometimes ushered in by a sardonic smile. In other moments the little boy was obviously expecting the shock in alarm.

In another very interesting case there were strangury and tenesmus, symptoms leading to the suspicion of calculus. The lancing of the gums afforded immediate relief.

As in the affection noticed in my last lecture, cerebral disease was described as frequently leading to convulsion; so, in those which I have just mentioned, the convulsion frequently leads eventually to cerebral disease, especially congestion and effusion. The due relation of the diseases of the cerebral and true spinal subdivisions of the nervous system is plainly seen. Hitherto there has been little but confusion in our views, both of the pathology and treatment of these several diseases.

We may now discern that, whilst in the cerebral diseases our remedies were chiefly directed to relieve the morbid condition of the arterial or capillary circulation within the head, in the diseases of the true spinal system, our efforts must be made to remove the cause or causes of these diseases, whilst we guard against their effects; viz. undue venous *congestion* of the cerebrum, and *effusion*.

I need scarcely advert to the erroneous views, and, consequently, erroneous mode of treatment, of this affection, of those authors who have considered it as originally an affection of the encephalon. Cause has been mistaken for effect, and effect for cause. The effusion, for example, which is the effect of the previous convulsive struggles, has been considered as their exciting cause. The whole confusion upon this point has arisen from not observing to what subdivision of the nervous system the *first* symptoms belong. I quite agree with Dr. Merriman in condemning as useless, or rather as injurious, the indiscriminate and lavish detraction of blood.

The proper mode of treatment comprises the remedies—

1. *Against the Attacks,*
2. *In the Attacks and in the Threatening of the Attack,*
3. *Against their Effects.*

The remedies against the attacks, or the prevention, consists in avoiding all the exciting causes:—dental, gastric, intestinal irritation; passion; vexation; disturbance; interrupted sleep; &c.

The remedies in the threatening of attacks consist in the watchful and prompt repetition of the same treatment;—lancing the gums, relieving the stomach and the bowels. The *sleep*, especially, should be watched; and if there be a sardonic smile, or starting, or other symptoms, the little patient must be *gently* awoke, and the remedies just enumerated should be administered.

After the gum-lancet, I would advise a copious enema of warm water.

If there be great threatening of an attack, I would tickle the fauces, dash cold water on the face, and irritate the nostrils, having the patient placed, as speedily as may be, in the warm bath.

To guard against the effects of the attacks, we may deplete the blood-vessels about the head with cupping or leeches; apply an alcoholic lotion constantly all over the head; or, if the case be urgent, the ice-cap.

In addition to these measures, the secretions must be corrected, mild mercurials being given, perhaps to affect the system; afterwards, change of air is of undoubted efficacy; and a very mild tonic plan may be added with advantage, as minute doses of the sulphate of quinine, of the carbonate of iron, &c. Sponging with *warm* salt and water is also a valuably auxiliary remedy.

It is impossible to misconceive the vast importance of this subject. If any thing could add to this importance, it is the fact that the convulsions of infancy frequently lay the foundation of epileptic attacks in youth or adult age. Sometimes the transition is so gradual and continuous, that the two affections are proved to be obviously the same." 81.

THE BRIDGEWATER TREATISES.

CHEMISTRY, METEOROLOGY, AND THE FUNCTION OF DIGESTION, CONSIDERED WITH REFERENCE TO NATURAL THEOLOGY. By *William Prout*, M.D. F.R.S. &c. &c. London, 1834.

[Concluded from No. 48.]

WE noticed the two first divisions of the Bridgewater Treatise before us, in the last number of this Journal. The principal arguments in support of the wisdom and goodness of a Deity, drawn by Dr. Prout from the facts and phenomena of chemistry and meteorology, were laid before our readers. We deferred the consideration of the concluding portion of the volume, which is occupied with the chemistry of organization, and particularly with the chemical process of assimilation. This consumes about 140 pages, and we shall proceed to give a sketch of Dr. Prout's opinions and reasonings upon the subject.

In discussing chemistry and meteorology, inorganic substances formed the chief objects of inquiry. We are now to be occupied with organized beings, and with the means and the processes by which their organization is effected.

Organic bodies are, independently of those subtle agencies denominated vital, chemical compounds. Both animal and vegetable, unlike as they appear and insensibly blended as they really are, consist of certain elementary bodies, termed the ultimate elements of organization—and of secondary compounds, named its immediate or proximate elements.

"Vegetable substances," observes Dr. Prout, "in general, contain essentially no more than three elements, *Hydrogen*, *Carbon*, and *Oxygen*; while animal substances usually involve a fourth. *Azote*. Yet there are many vegetable substances, of whose composition, azote forms a considerable part; while certain animal substances are entirely wanting in that principle. It is obvious, therefore, that the mere chemical composition of a substance, at least its essentially consisting of three or of four of these elements, will not enable us to determine whether it be vegetable or animal; and that, in many instances, when this point happens to be doubtful or unknown, we must have other data before we can form a conclusion. Besides these four elements, of which all organic substances are essentially compounds; other principles generally enter into their composition. These other principles are in very minute quantity, and are not so essential to the actual existence of organic substances, as the four constituent elements above named; yet, however minute the quantity, the influence of these other principles seems to be most important; they are, *Sulfur*, *Phosphorus*, *Chlorine*, *Fluorine*, *Iron*, *Potassium*, *Sodium*, *Calcium*, *Magnesium*, and probably more besides. These principles have, by most chemists, been deemed extraneous, or foreign to organized bodies; but we shall presently show, that there is good reason to believe, that the office of such additional principles, though different from that of the constituent elements, is nevertheless most remarkable. These four elements, along with the additional principles, are, in the present state of our knowledge, alike denominated, *The Ultimate Elements* of organized bodies; but hydrogen, carbon, oxygen, and azote, may be termed, for the sake of distinction, the *essential* elements; and sulfur, phosphorus, &c. the *incidental* elements of such bodies. The combinations of these ultimate elements with one another, according to

certain laws, produce what are denominated the *Immediate*, or *Proximate Elements* of organized bodies. Of these proximate elements, *Sugar, Oil, Albumen*, &c. are familiar examples." 417.

Perhaps, continues Dr. Prout, no substance actually forming a constituent part of a *living* plant or animal, is so pure as to assume a regularly crystallized form. All solid organized substances are, therefore, more or less rounded in their form, and any thing but crystallized in their interior. Organized fluids are very heterogeneous in their composition, although the basis of nearly every one is water.

Dr. Prout arranges organized bodies in two general classes:—those which, though they do not crystallize while in the living plant or animal, can yet, by various processes, be so far separated from extraneous matters, as to be obtained in a state of purity, and thus be made to assume the crystallized form; and those which cannot under any circumstances be made to crystallize.

Sugar and vinegar are instanced by Dr. Prout as members of the crystallizable family. Both contain oxygen and hydrogen, in the proportions requisite for the production of water and carbon, and it is remarkable the composition of the two should be so similar.

The uncrystallizable proximate elements alluded to by Dr. Prout, are starch and lignin. Starch consists of a number of granules. Its composition is so analogous to that of sugar, that chemistry detects but little difference in the proportions of the constituent parts. Lignin consists of equal weights of water and of carbon, the same elements, again, almost in the same proportions, producing a substance widely different in its physical qualities. The following Table exhibits at a glance the preceding points of similarity and distinction between sugar, acetic acid, starch, and lignin.

TABLE.

Substances Crystallizable.			*Substances* not *Crystallizable.*		
	Carbon.	Water.		Carbon.	W
SUGAR, from Starch.....	36·20	63·80	STARCH, Arrow-root in its ordinary state	36·4	6
from Honey.....	36·36	63·63	from Wheat, in its ordinary state ...	37·5	6
East India Moist....	40·88	59·12	ditto, ditto, dried at 212°	42·8	5
Beet-root and Maple,	42·10	57·90			
English Refined	41·5 to 42·5	58·5 to 57·5			
Pure Sugar Candy ..	42·85	57·15			
ACETIC ACID.....	47·05	52·95	. .....		
.....			LIGNIN, in its ordinary state of dryness	42·7	5
			from Willow, dried at 212°	49·8	5
			from Box, ditto	50	

By organic agency these principles are all easily convertible. By artificial processes we can change starch and wood either into sugar or vinegar—wood into a sort of starch—and sugar into vinegar; but we are unable to reverse the process and convert vinegar into sugar, or starch into wood.

The question naturally arises—how is it that substances, so nearly allied in composition, should exhibit such different sensible properties? To answer this question, Dr. Prout indulges in some theoretical considerations, which leave us, however, as much in the dark as we previously were, with respect to the actual cause of the phenomena. Indeed Dr. Prout's own remark—that these are ultimate facts—is the most satisfactory reply that can be offered. Such ultimate facts are withdrawn from the dominion of reasoning, and, perhaps, an abrupt confession of ignorance is more philosophical and more correct than attempts to explain what we cannot comprehend.

But although we are unable to understand the mysterious operation of the laws of chemical and vital combination, we may investigate the attendant circumstances, and render ourselves familiar with those facts which are within the scope of observation. Dr. Prout remarks that organized bodies may be viewed as differing in the composition of their essential—or in that of their incidental elements. Thus, sugar is composed of 42.85 per cent. of carbon, and the rest water: while vinegar consists of 47.05 per cent. carbon, and the residue water. Here the difference in the essential elements is attended with a most remarkable difference of properties. But the essential elements of sugar and starch are almost the same, and the difference of composition is in the starch containing some incidental bodies, from which sugar is free. Dr. Prout supposes that these incidental bodies are interposed between the constituent molecules of the substance which are in a state of self-repulsion. But this is so conjectural that we may pass it by. We fear that this theory of the phenomena of vitality, though more chemical than many of its predecessors, adds no more than they have done to the sum of our knowledge on the subject—a sum which amounts to little more than absolute and hopeless ignorance.

Between organized and inorganic matter, there is a visible distinction. The metaphysical atheists, however they may envelop their own reasoning faculties in an impenetrable fog of abstract ideas or words, have never been enabled to extinguish the common sense of mankind, and to prevent it from seeing, feeling, and acknowledging the difference between living matter and dead. If organization consists simply in the chemical combination of certain elementary substances, and if life be "the sum of organization," it follows of course, that the combinations of elements constitute life, which is no more than the result of chemical action. Such is the close reasoning of some modern philosophers, who have established for themselves an enviable reputation, by the promulgation of such ridiculous fallacies.

The whole argument is based on an assumption which they cannot prove—an assumption, that it is the combination of the elements which gives rise to the phenomena of life. Let us look at this.

If two or more elementary bodies combine, a product is the consequence, possessed of certain characteristic properties, and accompanied, in its formation, by certain phenomena. Those phenomena always occurring under similar circumstances, constitute the evidence, and the product, the effect of

what we denominate chemical action. If two volumes of hydrogen and one of oxygen are mixed and detonated, the result is water; and, no disturbing agents interfering, that result always follows the same antecedents.

It is to such an action as this that vitality has been compared. Yet observe how foolishly. We ascertain by chemical analysis, that an organic substance is made up of certain elementary materials in certain constant proportions. So far it displays the properties of every chemical compound. We endeavour artificially to reproduce it—we bring its elements together—we apply every circumstance favorable to their combination—but, never yet, save in mythology or fable, has any organized being or the smallest atom of a substance of organic character sprung from the atheistical still.

The assumption, then, that vitality is the product of elementary action, is founded on an analogy, which is demonstrably false. Chemical compounds may be recomposed—organic compounds cannot. Even Nature, that is, Nature's God, does not exert the power of *producing* living things, by the mere conjunction of their elements. Chemical compounds are constantly destroyed and as constantly re-formed. The very elements of organization are continually discarded and resumed. But life is not so resolved and reconstructed, and the Deity has shewn how distinct it is from chemical action by the solicitude with which he has contrived the process of organic generation. Even the researches on the production of the infusoria have left the dogma—omne vivum à vivo, unshaken.

Analogy, even when it presents no apparent imperfection, can seldom be received as a conclusive argument. It may form a part, an important part of cumulative reasoning, but, by persons of exact minds it will not be permitted to do more. What then shall we say of analogy palpably defective—what shall we think of reasoners, who, affecting to despise the prejudices of mankind, and to distrust the principles that have influenced its belief, employ a logic more inexact than that which they would overthrow, and build *their* conclusions on premises so flimsy that a school-boy could confute them?

It may be said that the materialists do not contend for the operation of *ordinary* chemical action, in the production of the phenomena of life. But if it be not ordinary chemical action, what will these gentlemen tell us that it is? Their boasted philosophy will leave them where it picked them up, and after all their doubtings they must come to the point of common sense from which they started; and own that this something, which is not chemical, which is not mechanical, which differs in many important respects from any agency common to inorganic matter, is something sui generis—in short is—life.

The organic agent, or agents, whatever it or they may be, controul and modify the laws of matter. They modify them to a certain extent—to that extent conducive to the constitution of organized beings, such as we find it to be. Whether among the innumerable possibilities of combination there might not have been some more perfect than those we are actually acquainted with, is not the present question. Our business is with Nature as she is, and not as she might otherwise have been. Dr. Prout, to whom we now return, enquires what the modes of operation of the organic agents are.

"In the first place," says Dr. Prout, "with regard to what *cannot* be effected by organic agency, we may observe, that no organic agent has the power either of *creating* material elements, or of *changing* one such element into another.

By element, it may be right to premise, is here meant, a principle that is not made up of others; and which, consequently, possesses an absolute and independent existence. Whether one, or more, such elements exist, it is not now our object to enquire. The astonishing discoveries of modern chemistry have shewn, that many of those substances, formerly considered as elements, are, in fact, compounds; and as the science of chemistry is still progressive, it is probable that, with the enlargement of its boundaries, there will be a still further diminution of the number of those substances which are, as yet, held to be simple. Admitting, however, for the sake of argument, that elementary principles do exist, of such immutable character as has been supposed; from the nature of organic beings, at least of all animals, it is impossible to conceive that they possess the power either of creating or of altering these elementary principles. For no organized being has an independent existence, but all animals derive their support from previous organization, which might be otherwise, did they possess a creating power; nor can they be nourished by all substances indiscriminately, as they ought to be, were they possessed of a transmuting power. Yet, while it is thus denied that organized beings possess the power, either to create or to change, in the strict acceptation of these terms; it has been admitted to be exceedingly probable, that the organic agent is, within certain limits, qualified to compose and decompose many substances which are now viewed as elements; and that the organic agent does thus apparently form and transmute these imagined elements. But to enter further, in this place, on the elucidation of these obscurities would be foreign to our present purpose." 432.

The organic agent has not the power of combining elements in such a manner, that the properties of the resulting compound shall be different from those of a compound, formed from the same elements similarly combined by any other agent. Of course there are limitations to the powers of vitality, and this is one. If the organic agent combines oxygen and hydrogen in the proportions in which they are combined in water, only water can result. Such is the position of Dr. Prout. We give it as it stands, yet we may observe that our acquaintance with the facts of organization is perhaps too limited to enable us to receive it with implicit confidence. There is no absurdity in supposing that combinations, the result of ordinary chemical affinities, may be modified by other powers; or, in imagining that, under peculiar circumstances, vitality may exert that influence. This is not a question capable of being determined by reasoning, but only by observation of the fact. Indeed, so far as the very imperfect knowledge we possess on the powers of organization goes, it rather seems to shew that they do modify chemical action. If we find for example that the living principle, out of certain proportions of elements forms sugar, and that nothing save the living principle can combine those elements in such a way as to produce that compound, it is a priori evidence in favour of the belief that vitality does disturb affinities, and alter their results. It is obvious that, whatever our speculative notions on the subject may be, our acquaintance with the actual operations of nature is exceedingly limited and vague.

The means by which organic agents effect the required purposes, are divided by Dr. Prout into two kinds:—those which are dependent on peculiarity of composition and of structure; and those by which this peculiarity of composition and of structure is produced.

Although the ultimate elements of organization are not numerous, and are generally diffused through the various parts of each organic being, yet the proximate principles formed by the organic agent out of those elements,

are more exclusively appropriated to particular parts and functions. Thus the woody fibre of plants is always formed of lignin, and never of resin or albumen. Peculiarities of structure, therefore, almost invariably indicate peculiarities of composition—and similarity of structure, identity, or, at all events, similarity of composition.

2. The means by which that *peculiarity of composition and of structure is produced*, which is so remarkable in all organic substances, like the results themselves, are quite peculiar; and bear little or no resemblance to any artificial process of chemistry. For example, we have not, in artificial chemistry, any control over individual molecules; but are obliged to direct our operations on a mass, formed of a large collection of molecules. The organic agent, on the contrary, having an apparatus of extreme minuteness, is enabled to operate on each individual molecule separately; and thus, according to the object designed, to exclude some molecules, and to bring others into contact. Dr. Prout proceeds with some ingenious, but fanciful suppositions on the modes in which these molecules, and molecular powers act. We fear, however, that all is too uncertain to detain the exact reasoner. Dr. Prout adverts to the notion of spontaneous development of organization maintained by some distinguished French philosophers. Whether distinguished or not in other ways, they have been eminently distinguished for absurdity in this. Even Voltaire held up this folly to ridicule, and in one of his Contes en Vers, he introduces a Sage of this Harlequin school, developing an oyster into a man. One reply is sufficient for this theory. Can its advocates shew us the fact? If it is a fact they ought to shew it, and they could do so. This spontaneous development will probably be exhibited when the transmutation of metals is effected.

Dr. Prout concludes the chapter with some remarks on the powers displayed by the Creator, in uniting the ultimate elements of bodies, with the vital agents. All is indeed wonderful and incomprehensible here. But it is a melancholy truth, that what excites devotion and awe in a religious mind, hardens and confirms scepticism in the sceptic. What is incomprehensible is no longer a matter of demonstration or of argument, and the sullen atheist, confident in the reason that he abuses and debases, shuts his ear to the Hosanna of humble and of grateful adoration.

One idea of Dr. Prout's may be glanced at for its singularity. Amidst the wonders of Creation, he observes, it is perhaps difficult to say what is most wonderful; but we have often thought, that the Deity has displayed a greater stretch of power, in accommodating to such an extraordinary variety of changes, a material so unpromising and so refractory as charcoal, and in finally uniting it with the human mind; than was requisite for the creation of the human mind itself. To Him, however, all things are alike easy of accomplishment; and He, doubtless, has willed these and other proofs of His omnipotence, in order to convince us of this truth,—that the Creator of the mind, could alone have created the matter with which the mind is associated! When we look at the elements of which man is made, and when we turn from the material composition of the brain to its intellectual and moral operations, we are compelled to own how utterly inadequate all reasoning is to the explanation or the comprehension of this mystery. The vain sophist is to be pitied, who can satisfy himself that the water and the carbon of which his cerebrum

is manufactured, are sufficient to produce by their chemical combination, even the poor intellect that *he* evinces.

The Second Chapter is occupied with the modes of nutrition—and a sketch of the alimentary apparatus, and of alimentary substances, in plants and in animals.

Nutrition, of course, presupposes the assumption, by the body nourished, of extraneous matters. The nutrition of animals and plants is effected, as might be expected, by means of a different description.

1. *Of the Nutrition of Plants.*

"A few forms of tissue," says Professor Lindley, and our author quotes his words, "interwoven horizontally and perpendicularly, constitute a *stem*; the development, by the first shoot that the seed produces, of buds which grow upon the same plan as the first shoot itself, and a constant succession of the same phenomenon, causes an increase in the length and breadth of the plant; an expansion of the bark into a *leaf*, within which ramify veins proceeding from the seat of nutritive matter in the new shoot, the provision of air-passages in its substance, and of evaporating pores on its surface, enables the crude fluid sent from the roots to be elaborated and digested until it becomes the *peculiar secretion* of the species: the contraction of the branch and its leaves forms a *flower*; the disintegration of the internal tissue of a *petal* forms an *anther*; the folding inwards of a leaf is sufficient to constitute a *pistillum*; and finally, the gorging of the pistillum with fluid which it cannot part with, causes the production of a *fruit*." 445.

The sap of plants consists of water, mucilage, and sugar, with some minute portions of other matters, principally saline. Though some moisture is absorbed by the leaves, the principal portion enters by the roots, and particularly by the fibrous parts termed *spongioles*. It seems to be established that the roots, besides imbibing nourishment, perform also an excretory office; and that in the soil in which plants grow, there are deposited by the roots certain matters of an excrementitious nature, injurious to the plants from which they have been separated; and which, therefore, cannot be absorbed again till they have undergone decomposition. Such excreted matters have been adduced as the reason, why a soil becomes so much deteriorated by any one species of plant having long grown in it, that it will not support other individuals of the same species: whence the necessity of a rotation of crops.

The quantity of water or sap in some plants is very great, as is the force with which, on the approach of warm weather in our climate, or of the rainy season within the Tropics, it is determined upwards. The composition of the sap varies in different parts of the same plant; it is little more than water in the roots, but as it ascends it acquires more and more of saccharine and other matters.

When the sap begins to rise, the leaves begin to be developed. From the leaves more particularly, a copious evaporation of the watery portions of the sap takes place. The more solid matters, dissolved in a less proportion of water, after undergoing further changes, probably for the most part in the leaves, are returned to be deposited in other parts of the plant.

"It seems now to be generally admitted, that one part of the food of plants is the matter extracted from the soil; and that this matter is taken up with the watery portion of the sap above-mentioned. It seems also to be admitted, that

carbonic acid gas is in some way indispensable to vegetation; 'for it has been ascertained that, feed plants as you will, they will neither grow nor live, whether you offer them oxygen, hydrogen, azote, or any other gaseous or fluid principle, unless carbonic acid is present.' Like the other nutritious matters, this carbonic acid is partly taken up by the roots; but, under certain circumstances, it is also separated from the air, and absorbed by the leaves. The circumstances under which this absorption, or rather decomposition, of carbonic acid, by the leaves takes place, are most curious and important. They are understood to be as follows:

During the day, and particularly during sunshine, the leaves of plants have the power of abstracting the carbonic acid from the atmosphere. The carbon of the acid, and perhaps also a little of its oxygen combine with the plant; while the greater part of the oxygen remains, and is diffused through the atmosphere in a gaseous state. During the night, on the contrary, or in the shade, plants, in general, convert a portion of the oxygen of the atmosphere into carbonic acid; but the quantity thus converted, is less than that separated from the carbonic acid which they decompose, under the influence of the solar light. At the same time with this formation of carbonic acid by plants during the night, they are said also to absorb from the atmosphere a certain portion of oxygen; to replace that which had been given off, during exposure to sunshine, on the preceding day. Plants absorb carbon as long as they are exposed to the light; during the season, therefore, when the day is long and the night is short, plants give off much less carbon than they absorb. This excess of the absorption of carbon is probably one reason why, in the Polar latitudes, the progress of vegetation is so rapid. By a beautiful provision of nature, in the course of the short summer of a few weeks, but of unvarying light, plants, in these latitudes, go through all the changes which in hotter climates require many months.

These phenomena of gaseous absorption and secretion in the leaves of plants, seem to be produced by a portion of the leaf peculiarly organized, and situated immediately under its external covering or epidermis. Professor Burnet has lately explained these phenomena, by referring them to the respiration and digestion of plants. The process of respiration in plants, is supposed to be continual; and to be accompanied, as in animals, by the formation and emission of carbonic acid gas. While digestion, which consists in the decomposition of carbonic acid gas, takes place only during the exposure of plants to the influence of the light—the carbon of the carbonic acid being separated from the oxygen, and absorbed. Hence a plant exposed to sunshine purifies the air, by digesting the carbonic acid, the carbon of which it appropriates; while it sets the oxygen free. In the dark, on the contrary, digestion ceases, but respiration continues; and carbonic acid gas is thus accumulated in the surrounding atmosphere." 449.

The peculiar principles of plants are very numerous, but admit, Dr. Prout conceives, of classification under three heads;—the saccharine—the oily—and the acid. Some vegetable principles contain azote, and perhaps other elements.

2.—*Of the Nutrition of Animals.*

We may pass by Dr. Prout's description of the organs of digestion in man and in animals. It is a lucid sketch, well adapted for the general reader, to whom it is addressed. Dr. Prout makes an observation, in which we cannot help thinking there is much truth, although the opinion has been hotly denounced by the transcendental vitalists. The observation is this—that the organic or vital agents operating in effecting the process of digestion, are probably in man, as in other animals, not very far removed from the agencies of mere inorganic matter. When we look at the process of chymification and defæcation, we must admit that they resemble very closely

those of a chemical character. It is true that the secretions which are poured upon the aliment, and are operative in effecting the changes in question, are under the control of the nervous influence, and it is most probable that nervous influence, here as elsewhere, is one of the higher attributes of organization; yet, even with this abatement, the process of assimilation in plants, and, indeed in animals, may be regarded as the initiative of organic agencies and actions, the connecting link between the living and the dead.

The consideration of alimentary substances next occupies our author. As his researches on this point have been long before the public, we shall touch on them but lightly. But to many of our older readers, who cannot be acquainted with the contents of the later works on physiology, they will probably be novel.

It may be stated, as a general rule, that animals seem destined by nature to feed on those below them in the scale of organization. Of course this must be regarded as only the expression of the most general law that the case admits. The lower animals are endowed with organs which enable them to digest the grasses and the vegetables most difficult of assimilation; and, having done this, they become the food of other and of higher animals, whose organs are not fitted for the digestion of those simple elementary aliments.

The compatibility of this scheme of carnivorous feeders, with the notions we possess of perfect benevolence on the part of the Creator, has been frequently denied. It must be owned that the defence has never been satisfactory as an argument. The following may be considered as the principal reasoning employed by the advocates of the system of preying on each other, that distinguishes the animal creation.

"If organized beings did not prey on each other, their remains would, in time, accumulate in such quantity, as to be nearly incompatible with life; certainly with animal life in its most perfect condition, as it is at present known to us. But by the arrangement that animals are food to each other, not only is an opportunity afforded, for the existence of a greater number of animals, and of a greater variety among them; but the obtrusion of the bodies of animals, in whom life has become extinct, is entirely prevented: nor is the removal of the dead animal matter the only good accomplished, but many other important results are obtained." 472.

It is a very imperfect defence of the wisdom and goodness of the Creator, to urge that he has deemed it necessary to correct the redundancy of animal life, the result of his own laws, by wholesale cruelty. Similar reasoning justifies infanticide in China—proves, if it proves any thing, either the unskilfulness or the malevolence of the Divinity. The truth is, that the existence of this physical, as of many moral evils, is a natural fact that we must admit, but cannot understand. When we look around us, and see other and mightier worlds, and when, reasoning from what we do see to what is beyond our sphere of vision, we conjecture that there may be systems of worlds besides, we are compelled to feel our own insignificance, and to admit how inadequate both our minds and our knowledge are, to enable us to comprehend our position in the Universe. Of that Creation we form a proportion so minute, that what seems to be partial evil may, indeed, be universal good, and those laws which we cannot reconcile with our limited notions of bene-

volence and justice, may form the part of a whole system which exhibits the highest degree of both.

This is the manner in which the accusation of partiality and cruelty on the part of the Creator, for inflicting on his creatures physical and moral evil, has been met by some of the ablest theologians. Butler, in that noble work, the Analogy between Natural and Revealed Religion, adopts, if our memory serves us, this defence. Paley does the same. It is we think, in a philosophical and moral sense, a better defence than to justify the infliction of misery and wrong, by what must be considered maxims of state policy. That much unhappiness, not absolutely springing ex necessitate rei, has been permitted to exist, is not and cannot well be denied. That inevitable admission is so far an acknowledgement of a defect, either of unconditional benevolence or unconditional power, in the Creator. But either is a monstrous supposition; and, in the choice of difficulties, it is easier to suppose our faculties too narrow to perceive the adaptation of the actual arrangement to a great scheme of creation, in itself most wise and good, than to conclude that a Deity, who on every side displays consummate art and obvious beneficence, should here, without an object, fail in both. In short, both the religious and the reasonable man must humbly own his ignorance, and deprecate the anger of an Almighty Being, who has shewn that he can punish as well as reward. How splendid is the apostrophe of Pope to the complaining infidel.

> Presumptuous man! the reason would'st thou find,
> Why form'd so weak, so little, and so blind!
> First, if thou canst, the harder reason guess,
> Why form'd no weaker, blinder, and no less?
> Ask of thy mother earth why oaks are made,
> Taller and stronger than the weeds they shade!
> Or ask of yonder argent fields above,
> Why Jove's satellites are less than Jove!

The carnivorous system has, chemically speaking, this effect—it occasions a remarkable similarity of composition in the great family of organized beings. They may be said to be essentially made up of three great staminal principles—the saccharine principle, chiefly found in the vegetable kingdom, and formed of carbon and water—the oleaginous principle, existing both in vegetables and animals, affecting both solid and fluid forms, and composed either of olefiant gas and water, or of some analogous constituents—and finally, the albuminous principle, comprising gelatine and gluten, and displaying in its constitution the superadded element of azote.

Such are the three staminal principles of organization;—their forms are infinite—their convertibility considerable—and, under the influence of the vital agents, new principles, proximate principles, of course, appear at times to spring from them. If such be the chemical analysis of organization—if all animals are composed of these three great staminal principles—it must follow that their food, that is their own materials, must necessarily consist of one or more of the principles in question. Such is found to be the fact.

"Hence, it not only follows, as before observed, that in the more perfect animals, all the antecedent labour of preparing these compounds *de novo*, is avoided; but that a diet, to be complete, must contain more or less of all the three staminal principles. Such, at least, must be the diet of the higher classes of animals,

and especially of man. It cannot, indeed, be doubted, that many animals have the power of forming a chyle, and, if expressly organized for the purpose, may even live for a while on one of these classes of aliments; but that they can be so nourished for an unlimited time, is exceedingly improbable. Nay, if we judge from what is known from universal observation, as well as from experiments which have been actually made by physiologists regarding food, we are led to the directly opposite conclusion, namely, that the more perfect animals could not so exist; but that a mixture, of two at least, if not of all the three classes of staminal principles, is necessary to form an alimentary compound, well adapted to their use.

This view of the nature of aliments is singularly illustrated and maintained by the familiar instance of the composition of *milk*. All other matters appropriated by animals as food, exist for themselves; or for the use of the vegetable or animal of which they form a constituent part. But milk is designed and prepared by nature expressly as food; and it is the *only material* throughout the range of organization that is so prepared. In milk, therefore, we should expect to find a model of what an alimentary substance ought to be—a kind of prototype, as it were, of nutritious materials in general. Now, every sort of milk that is known, is a mixture of the three staminal principles we have described; that is to say, milk always contains a *saccharine* principle, a *butyraceous* or *oily* principle, and a *caseous*, or strictly speaking, an *albuminous principle*. Though, in the milk of different animals, these three staminal principles exist in endlessly modified forms, and in very different proportions; yet neither of the three is at present known to be entirely wanting in the milk of any animal." 478.

Dr. Prout observes in passing, that the formation, situation, opportune production, and composition of milk, are as clear an instance of design as any in the creation. This is so obvious that we need not dwell on it. To imitate milk, not in colour nor in taste, but in actual chemical constitution, is, according to our author, the great art of cookery, and of the cook: and however indignant M. Ude may feel, this is undoubtedly the fact. The mixture of the three great staminal principles is the end and, unwittingly it may be, the aim, of the thousand combinations of butter, and sugar, and flour, and eggs, that, under tens of thousands of names, issue from the steaming laboratories of the kitchen and the bakehouse. To man, amongst his other privileges, has been accorded that of cookery; yet so bad an use has he made of it, that, instead of displaying gratitude for his power of torturing his aliments into paste, and stews, and fricandeaus, the popular voice has proverbially assigned both cookery and cooks to an origin any thing but divine.

Dr. Prout proceeds to investigate the digestive process. He makes some remarks on the manner in which water enters into the composition of bodies, which merit the attention of our readers.

Water is mixed up with most organized beings in two separate modes, or forms. It may constitute, he says, an *essential* element of a substance, as of sugar or of starch in their dryest states; in which case, the water cannot be disunited without destroying the compounds: or water may constitute an *accidental* ingredient of a substance, as of sugar or of starch in their moist states; in which case more or less of the water may frequently be removed, without destroying the essential properties of the compound. Now, a very large number of organized bodies (perhaps all those to which our present enquiry relates), contain water in both these forms; both as an essential element, and as an accidental ingredient; and in most instances, it is impossible to discriminate between the water that is essential, and that which

is accidental. The mode of union, however, among the elements of bodies, in these two states of their combination with water, must be altogether different. The difference is one of those subtle facts, enveloped in the mystery of organic agencies and actions. Dr. Prout offers some very ingenious observations on the laws which appear to regulate it, but, for these, we are compelled to refer our readers to the work itself. We will therefore proceed to the chemical operations of that organ, into which the aliment is introduced—the stomach.

Our readers must all know that very different opinions have been entertained with respect to the operations of the stomach. It has been successively regarded as a mill—a stew-pan—a vat—and, of late, as a galvanic trough. The prevailing science of the day has claimed the stomach as its own, and, the various sects who have reigned in medicine have successively found in the operations of this organ an example of the powers which constituted the Archæus of their doctrines. Some physiologists have run, perhaps, to an opposite extreme, and, disgusted with the attempt to reduce vitality to physics, have claimed for the stomach a superiority to chemical and mechanical operations, as absurd and erroneous as its exclusive degradation to the one or the other. When we see on the one hand an apparatus, palpably calculated for trituration, and pouring out a fluid which exerts a marked chemical action on the food—and when we view, on the other, the effects of numerous vital agencies, as the influence of the mind and appetites, on this same organ of chemical and mechanical construction—we must admit at the very threshold of inquiry, that it would be unphilosophical to seek in any single agency, the solution of its complex functions. We shall probably find that though the means are physical, and obvious, the controlling power is essentially vital and recondite. Dr. Prout offers the following view of the general operations of the stomach.

1. "The stomach has the power of dissolving alimentary substances, or, at least of bringing them to a semifluid state. This operation seems to be altogether chemical; and is probably effected by *reducing* the properties of these alimentary substances.

2. The stomach has, within certain limits, the power of changing into one another, the simple alimentary principles, which have been described in the last chapter. Unless the stomach possessed such a power, that uniformity in the composition of the chyle, which we may imagine to be indispensable to the existence of every animal, could not be preserved. This part of the operations of the stomach, appears, like the reducing process, to be chemical; but not so easy of accomplishment; it may be termed the *converting* operation of the stomach.

3. The stomach must have, within certain limits, the power of *organizing* and *vitalizing* the different alimentary substances; so as to render them fit for being brought into more intimate union with a living body, than the crude aliments can be supposed to be. It is impossible to imagine, that this organizing agency of the stomach can be chemical. This agency is *vital*, and its nature is completely unknown." 489.

The above may be considered a very fair estimate of the action of the stomach—an action, so far as the alterations of the food go, chiefly chemical, but partly vital also. The transcendental vitalists are loth to admit the operation of chemical agents at all, and would seem to consider it derogatory to suppose that any changes, save the subtle ones effected by the powers of life, are worked upon the aliment. Yet in this, as in other instances these

gentlemen betray a great ignorance of the mode in which the vital principle acts on matter, and, in their anxiety to avoid materialism, they run into a grosser error still. The vital principle, whatever it may be, incessantly makes use of chemical and mechanical agents for its purposes; and it is no more degrading to it to employ an acid liquid, and a triturating process in order to digest the aliment, than it was to have recourse to bony levers, cartilaginous pulleys, and tendinous ropes, in order to obtain it. There cannot be a more ridiculous or more pernicious error, than the attempt to strain beyond its just limits the immediate operation of the vis vitæ. The science of organization has made its great advances, by endeavouring to limit it, and by viewing the processes carried on in animals and plants, as the results of chemical and of physical operations, the instruments of the vital influence, which presides over them.

Dr. Prout first examines the reducing power of the stomach.

To ascertain in what it consists, he introduces into the stomach an albuminous fluid, and examines the alterations that it undergoes in its conversion into chyme. When received into the stomach, an acid secretion is poured on it, and it is coagulated, just as the albumen would be coagulated by an acid fluid out of the organ. After a time the coagulated albumen becomes softened, and at last it is changed into a nearly fluid chyme. In the chyme, it is still albumen, but its powers of coagulation are much weakened, apparently, from its combination with water. Thus the organic agent reduces the albumen from a strong to a weak condition. It is mixed too, we must remember, with fluids already animalized, the gastric fluid, and the mucus of the stomach.

Cookery assists the stomach, because it is itself a reducing process. Even the woody fibre may be changed, by alternate baking and boiling, into a sort of bread. Dr. Prout laments that cooks are not chemists. Their principal aim appears to be to make unwholesome things pleasant to the palate. Were they chemists, they would, perhaps reverse the proceeding and render wholesome things extremely nasty. In some disordered conditions of the stomach, its reducing or dissolving property is greatly deteriorated, and the power of digesting solid food is for the time destroyed. In some of those forms of indigestion, characterised by excessive sensibility of the nerves of the stomach, even the smallest quantity of fluid farinaceous aliment, is productive of much suffering when received into the stomach, and beyond this the organ can perhaps assimilate nothing.* In other diseases, as in diabetes, and in those extraordinary instances of bulimia that have from time to time been noticed and recorded, the reducing power of the stomach is inordinately increased. Before dismissing the subject we may observe, that the difference in this respect in different individuals is remarkable—some being endowed by nature with stomachs almost as potent as the gizzard of a granivorous bird; and others being afflicted with a natural delicacy of this important organ, a delicacy which is productive of no little misery in life.

It is interesting to inquire by what means the combination of the alimentary substances with water is effected. The gastric juice, is, certainly, the

* The curious reader may consult the work of Dr. Johnson, on morbid sensibility of the stomach and bowels.

most important agent in this operation, and it seems to owe its efficacy chiefly to chlorine. If, instead of that element, much free muriatic acid is elicited, great uneasiness, and more or less derangement of the process of digestion follow. Dr. Prout's speculations on the source of the chlorine are too curious to be suffered to escape unnoticed.

"The source of this chlorine or muriatic acid, must be the common salt which exists in the blood: to suppose that it is generated, is quite an unnecessary hypothesis. The chlorine is therefore secreted from the blood; and it may be demanded, what is the nature of the agency, capable of separating that element from a fluid so heterogeneous as the blood? We are acquainted with one agent that exerts such a power, namely, electricity; and this agent, as we formerly observed, seems to be employed by the animal economy for its operations, in the same manner, and on the same principles, as the materials themselves are employed, from which the animal body is constructed. Perhaps, therefore, the decomposition of the salt of the blood may be fairly referred to the immediate agency of this principle, electricity. But here the question arises, What becomes of the soda from which the muriatic acid has been disunited? The soda remains behind, of course, in the blood, and a portion of it, no doubt, is requisite to preserve the weak alkaline condition essential to the fluidity of the blood. But the larger part of this soda is probably directed to the liver, and is elicited with the bile in the duodenum, where it is thus again brought into union with the acid, that had been separated from the blood, by the stomach. These observations, illustrating the importance of common salt in the animal economy, seem to explain, in a satisfactory manner, that instinctive craving after this substance, which is shewn by all animals.

Admitting that the decomposition of the salt of the blood is owing to the immediate agency of galvanism; we have, in the principal digestive organs, a kind of galvanic apparatus, of which the mucous membrane of the stomach, and perhaps that of the intestinal canal generally, may be considered as the acid or positive pole; while the hepatic system may, on the same view, be considered as the alkaline or negative pole. Whether such galvanic action be admitted or not; and the admission is of no very great importance; what we have above stated may be received as a simple expression of the facts, in so far as they relate to the saline constituents of the blood. Moreover, be the nature of the energies what they may, by which these changes are effected; along with these changes, and probably by the aid of the same energies, other very important changes or processes are carried on, to some of which we shall presently have occasion to allude. In the mean time, we may close this section by observing that there is strong reason to believe, that the solvent power, which we have described, or some power having a great resemblance to it, exists not only in the stomach, but in every part of an animal body. In all animals there are minute tubes, called absorbents, which originate in every part of their bodies, and at length uniting, enter the sanguiferous system along with the chyle. Now, the office of these tubes, is to remove all those portions of the animal frame, which after having performed their several functions, require to be withdrawn. Of course, before solid parts can be thus removed, they must be dissolved, (*digested* in fact); and such solution, in many instances, is probably effected, as it is in digestion, by combining these solid parts with water. This supposed analogy between the solvent powers of the stomach, and those which must prevail all over the body, seems to be strongly confirmed by that similarity of structure and of function existing between the lacteals and the absorbents: they indeed form but one system." 498.

We see no great objection to supposing that the vital principle makes use of galvanism to separate the chlorine and the soda from the blood, but nei-

ther do we see any proof of its doing so. There is no reason for withdrawing the secretion of the gastric juice and of the bile, of the chlorine in the former and the soda in the latter, from under the control of the laws and the powers that regulate secretion in general. If that be galvanism, the nervous influence, for to the nerves the dominion of secretion is confided, is galvanism. In spite of the positiveness of Dr. Wilson Philip, this is yet unproved, and, probably, in the present condition of our knowledge, the most philosophical conclusion, is to look upon the nervous power as essentially vital and organic. It is possible, yet we scarcely conceive that it is likely, that the progress of physical inquiry may ultimately resolve this and other agencies that we now deem vital, into those which regulate matter in the gross. That period has not yet arrived, and we are bound to reason in accordance with the facts that we do know.

It appears to us that the analogy between the stomach and the absorbents of the body, is not so close as, on a slight examination, it may seem. The stomach pours out an acid liquid, which acts on a heterogeneous mass, and converts into a homogeneous paste. Nothing of the sort is proved in regard to the absorbents. They take up the fluids and the solids of the body, but, so far as we know, they effect little change in either. To compare them to the lacteals, is a different thing from comparing them to the stomach, for the lacteals appear to do little more than simply absorb, and, perhaps, select the matters for absorption. If the absorbents are analogous to the stomach, the veins are so too, for their absorbing powers are now undoubted. The truth is, that we are very imperfectly acquainted with the mechanism or the chemistry of either venous or lymphatic absorption.

2. The converting power of the stomach, consists in its altering the disposition of the ultimate elements, in the proximate organic principles submitted to it. As the chyle is very uniform in composition and consists essentially of albuminous and oleaginous materials, and as a large proportion of the food of most animals is made up of saccharine matters, the conversion of this into the oleaginous and albuminous principle must be effected. How it is so we do not know, nor can we explain the origin of the azote in the albumen. It is certain that, out of the body, sugar is convertible into alcohol, and alcohol is a weak oleaginous substance. The adaptation of the latter to the purposes of nutrition is sufficiently notorious. Hybernating animals are enormously fat when they retire for the Winter, but during their hybernation, all the adeps is removed.

3. The organizing and vitalizing powers of the stomach may be summarily disposed of. We are ignorant alike of their nature and their mode of operation. We here arrive at the ultimate facts of vitality, and our reason is unable to penetrate its arcana.

The changes that the food undergoes in the duodenum, are familiar. The bile and the pancreatic juice are poured upon it, and the chyle begins to be distinctly separated from those matters which are finally to be voided in the shape of excrement.

The composition of the bile, which is wonderfully similar in all animals, may be broadly stated as consisting chiefly of water and of various solid matters in which carbon and hydrogen predominate. These exist in conjunction with soda and its salts, and by the latter the bile is rendered alkaline.

The pancreatic secretion contains some albumen and a curdy substance, holds some saline matters in solution, and is slightly acid.

The changes that the chyme submits to in the duodenum may be briefly stated. From being acid, it grows neutral, or almost neutral—if no albumen was before perceptible it now becomes so—a little gas is extricated—and the separation into chyle and excrementitious portions begins. Such are the more obvious and remarkably constant alterations of the food effected in the duodenum. The process of vitalization that goes on there, baffles our means of enquiry and of comprehension.

In the alimentary canal, beyond the duodenum, the chyle is fully formed and absorbed, the excrement fully separated and removed.

Dr. Prout concludes the chapter by a few very interesting and judicious observations, on the nature of food and on its mode of preparation. He remarks that a knowledge of the process of digestion teaches us that the less organized our aliment is, the less it is digestible. Crystallized, or very pure substances, are consequently difficult of assimilation. Pure sugar, pure alcohol, pure oil, are not so easily digested as amylaceous matters, wines, or butter. Of all crystallized matters, pure sugar would seem to be assimilated with most facility, yet often it is utterly pernicious, and it seldom or never can be considered wholesome. It is man who has manufactured pure sugar and pure starch, and in this, as in other instances, he has shewn himself over-officious. Intent on gratifying the senses, he has wandered from the salutary simplicity of Nature, and the modern voluptuary, who sits daily at the board which has been decked by Ude, should reflect that the oil, and the sugar, and albumen which perverted cookery has tricked out in such unnatural and alluring forms, are poured into a stomach unequal to this incessant demand upon its energies. Gout, and gravel, and plethora, in its many consequences, wait upon the gourmand, and a sickly offspring will inherit his impaired digestion, perhaps his vicious tastes. Philosophy prescribes, but how seldom will wealth and sensuality take, a simpler diet and less luxurious cookery. If the dishes of France are perniciously complicated, Dr. Prout is of opinion that our own are too crude, and that here sufficient attention is not paid to the process of culinary reduction. Certainly our puddings and our pastry are execrable, and require for their assimilation all the vigour of a stomach fed with our plain animal food and strong wines. Yet it cannot be denied that, whatever faults may attach to our national diet, it is more calculated to give birth to bodily vigour, than the greasy compounds which our Continental neighbours indulge in.

In the following sentiment, we quite coincide with Dr. Prout. We think that the chemical view he has offered of the process of digestion is well calculated to give us a philosophical idea of it, and to substitute an exact simplicity for what was before invested with too much of the obscure and marvellous.

"The view we have now taken of the processes of digestion, removes in some degree that mysterious character with which they have been invested; and by lessening the field of our enquiry, brings us nearer to our object. We had previously known, that the articles employed as food by animals are essentially composed of three or four elements. But we have now learnt, that all the more perfect of those matters on which animals subsist, are compounds of three or four proximate principles; the whole of which compounds, except one, are, in their

essential characters, identical with those composing the frame of the animals themselves. We have also learnt, that owing to this identity of composition, many animals are saved the labour of forming these proximate principles from their elements; and have only to re-arrange them, as their exigencies may require. The task of forming the proximate principles is thus left to the inferior animals or to plants; which are endowed with the capacity of compounding them from matters still lower than themselves, in the scale of organization. Hence there is a series, from the lowest being that derives its nourishment from carbon and carbonic acid, up to the most perfect animal existing. Each individual in the series preferring to assimilate those immediately below itself; but having, on extraordinary occasions, and in a minor degree, the power of assimilating all, not only below, but above itself, in the system of organized creation," 511.

Setting aside all considerations of the question of animals being doomed to prey upon each other, and taking the carnivorous system as it is, the perfection of that system is very admirable. One creature works unconsciously, yet with perfect regularity, for the other, and each animal and plant feeds on some part of the organic world, and becomes the food for others in its turn. Man appropriates the labours of all, and, surrounding himself with the spoils of innumerable victims—ministering, with the destruction of other living things, to every want and every wish—straining his intellect to discover new sources of sensual indulgences, to be gratified still at the expense of the animal creation—he complacently sits down, and questions the benevolence of a Deity who permits a tiger or a shark. What mockery is this! The atheist has been endowed by a kind Creator with reason, which may enable him to shun the perpetration of unnecessary cruelty, and to raise himself, if he pleases, above the level of the beings born to yield to an indomitable instinct. Yet too often the discourser on the savageness of nature evinces no intention of dispensing with its privileges, and tickling his palate with mollusca when in season, he continues his elaborate and eloquent invectives against carnivorous feeding.

The consummate art with which the matters least calculated for affording nutriment to the higher classes of animals have still been made indirectly to sustain them, has often been a theme of admiration. The grasses, for example, will not by any cookery support the life of man. Yet the sheep and the bullock, gifted with a most elaborate contrivance for extracting their nutritious elements, have formed in all ages man's principal food. In this oblique manner, man may be said to feed upon the grasses. It would occupy us too long to point out the necessity for enabling him thus to make use of plants, the most widely diffused and most easily produced. Had the animals on whom he must chiefly feed, been unable to subsist on so common and prevalent a species of nutriment, man must have been incessantly in danger of starvation. On the whole, it is impossible not to perceive the adaptation of things in the organs of digestion and the aliment—it is impossible to deny the evidence of elaborate design, consummate wisdom, and infinite benevolence.

The fourth chapter, the last, is occupied with the conversion of chyle into blood—with respiration—secretion—the final decomposition of organized bodies—and with some general reflections, which form the conclusion of the volume.

1. There is little to be said on the absorption of the chyle. But Dr. Prout

adverts, and we think very justly, to the functions of the absorbents of the body. An opinion has prevailed, that the matters they contain are excrementitious, the debris of the machine, taken up by these sewers and carried off. As Dr. Prout observes, it is not likely that merely excrementitious matter would be mixed with the new chyle, which has just been separated from excrement of another sort. On the contrary, there are many reasons for supposing that, though the lymph contained in the absorbents must be in some degree excrementitious, it is decidedly recrementitious also. Mixing with the new chyle, it tends to effect its animalization, and perhaps, as Dr. Prout remarks, the lymph is destined to undergo repeated organizing processes.

2. The blood, into which the chyle and lymph are poured together, is essentially, as all our readers know, an albuminous fluid. Now it is a fact, that *gelatine* is never found in the blood, nor in any product of glandular secretion. Dr. Prout observes that gelatine appears to rank lower than albumen in the scale of organized substances, and that a given weight of it contains three or four per cent. less carbon, than an equal weight of albumen. The production of gelatine must therefore be a reducing process.

3. Passing over the mode in which the blood is conveyed to the lungs, we may pause at the last chemical theory of respiration, and of the gazeous changes in the air, that are observed in it.

"On examining the respired air, a remarkable alteration of its properties is found to have taken place; a portion of its oxygen has disappeared, and a similar bulk of carbonic acid gas has been substituted. With respect to the origin of this carbonic acid gas, there have been various opinions. Formerly, the greater number of physiologists maintained that carbon, in some form, was excreted by the lungs; and that this excreted carbon, uniting with the oxygen of the inspired air, was converted into carbonic acid gas. No one imagined that oxygen gas could be passed inwards through the membrane of the lungs, while carbonic acid gas was, at the same time, passing outwards, through the same membrane. Accurate observations have, however, demonstrated, that such a simultaneous passage of gases really takes place through the membrane of the lungs; and the observations are not confined to the two gaseous bodies in the lungs; but are applicable to all gases whatever, under similar circumstances. In consequence of these observations, it seems now to be generally admitted, that the oxygen of the atmospheric air is absorbed by the blood, and, in some unknown state of combination, reaches the extreme subdivisions of the arteries; where it is united with a portion of carbon, and forms carbonic acid gas: that this carbonic acid gas is retained in some unknown state of combination in the venous blood; till, in the lungs, it is expelled, and oxygen is absorbed in its stead; according to the laws which regulate the diffusion of gaseous bodies, formerly explained. Further, with the carbonic acid gas, a large quantity of aqueous vapour, as we have stated, is at the same time separated." 523.

The bright colour of arterial blood, which was formerly considered exclusively due to oxygen absorbed, would seem to be much influenced by the saline matters contained in the blood; the dark colour of venous blood is chiefly owing to the presence of carbonic acid gas.

"What is the source (says our author) of the carbonic acid in venous blood, and of the aqueous vapour that is expelled from the lungs? These questions cannot be answered with certainty. But some observations lately made, have induced us to believe, that the *conversion of albuminous matters into gelatine*, is one great source of the carbonic acid in venous blood. Gelatine, which, as be-

fore observed, contains three or four per cent. less of carbon than albumen contains, enters into the structure of every part of the animal frame, and especially of the skin: the skin indeed consists of little else besides gelatine: it is most probable, therefore, that a large part of the carbonic acid of venous blood is formed in the skin, and in the analogous textures. Indeed, we know that the skin of many animals gives off carbonic acid, and absorbs oxygen; in other words, performs all the offices of the lungs; a function of the skin perfectly intelligible, on the supposition that near the surface of the body, the albuminous portions of the blood are always converted into gelatine. With respect to the aqueous vapour thrown off from the lungs: we have every reason to believe, as before stated, that much of this vapour is *derived from the chyle*, in its passage through these organs; and that by such separation of water, the *weak* and delicate albumen of the chyle is converted into the *strong* and perfect albumen of the blood; according to the principles detailed at the commencement of this chapter." 525.

The precise use of the constant evolution of carbon, as well as the mode in which it is effected, are points involved in much obscurity. It is probable that, whatever other causes of animal heat there may be, the production of carbonic acid gas in the body is one. Why so much carbon should be extricated from the body as there actually seems to be, is by no means obvious.*

There can be no doubt that the extrication of carbonic acid by animals, is subservient to the support of plants, of which it forms the principal food. We now see, says our author, that nearly the whole of the superfluous carbon produced by the operations of the animal system, is actually thrown off in the form of carbonic acid. Plants, therefore, on the one hand, supply the chief nourishment to animals; while that gaseous matter which is separated by the animal economy, and which, if retained within animals, would to them be fatal, constitutes, on the other hand, the chief food of plants. Nor, in these two respects only, are the two great systems of organization mutually dependent; for unless plants consumed the carbonic acid gas which is formed by animals, this deleterious compound would probably accumulate in the atmosphere, so as to destroy animal life; while it is doubtful whether the present races of vegetables could exist, if carbonic acid gas were not formed by animals.

We think it is scarcely necessary to pursue the argument of design. Wherever we search, we discover nothing else. In one instance, perhaps, the evidence is more distinct, the contrivance more palpable and gross, the case better suited for a mere argument; but design is every where apparent, at least to him who looks, not predetermined to be blind.

Dr. Prout very properly directs attention to the adaptation of mechanical contrivance to chemical operations in the economy—an adaptation which conclusively establishes design.

"Thus, when we witness such a display of elaborate arrangements as are exhibited in the mechanism of the digestive organs, and of the circulating system; the purpose of which arrangements is merely to produce a few chemical changes in the food, and in the blood; it is evident that the chemical changes so pro-

* It has been calculated, perhaps extravagantly, that the lungs of a man of ordinary size expel eleven ounces of carbon in the course of twenty-four hours.

duced, must be at least as real as the mechanical structure, by means of which they are effected. Hence the adaptations of mechanical arrangements, in the structure of organized beings, to the pre-existing chemical properties of matter, affords an evidence of design, not less impressive than unequivocal. The most determined sceptic cannot assert that there is any *necessary* relation, or indeed any relation whatever, between the mechanical arrangements, and the chemical properties to which they administer. There is no reason why the chemical changes of organization should result from the mechanical arrangements by which they are accomplished: neither is there the slightest reason why the mechanical arrangements, in the formation of organized beings, should lead to the chemical changes of which they are the instruments. From what cause, then, arose the association of the chemical changes with the mechanical arrangements? How were the chemical operations of digestion and of respiration brought into union with the mechanical apparatus of digestion, and with the circulating system? The co-existence of things so entirely dissimilar, and having no kind of mutual relation, can be explained only on the supposition that *a will exists somewhere*; and also a *power* to *execute that will.*" 541.

All organic bodies, admirably contrived as they have been, are doomed to exist as living things but for a season. All nature is in motion, all organism is a cycle. Birth, growth, maturity, decline, and death, are the destiny of animal and plant. But organic death is not even material annihilation, for the gases and the elements of which the corporeal fabric was constructed, when liberated by the process of decomposition from *it*, are speedily engaged in ministering to the constitution of some other organized being. The Pythagorean applied to the soul, the laws which modern chemistry has shewn to regulate the body. If our spirit does not transmigrate, our elementary components do, and "the noble dust of Alexander," which Hamlet conjectured might be "stopping a bung-hole," was perhaps, at that instant, forming a part of the thinking brain of the Dane himself.

The dissatisfied sceptic, doubting if he was created, repines that he is to die. Eccentric reason generates the infidelity—Nature dictates the complaint. It does, indeed, seem a hard decree, which has gone forth against the sons of men:

> The race
> Which could not keep in Eden their high place,
> But listened to the voice of knowledge without power,
> Are nigh the hour
> Of death.

The pride of humanity would be gratified at the consciousness, that *it* was exempt from the law of change that governs the rest of the Creation. That law is, doubtless, the result of the same consummate wisdom that is evident in every thing besides. Constituted as we are, the change at which we murmur is the source of very much of our happiness, and of most of our improvement. In political life, it prevents the despotism into which institutions would converge—in moral life, it uproots the vices which infest old nations—and in the scheme of nature it maintains perpetual youth. Had we been created with other aptitudes, and surrounded with other circumstances, the same Omnipotence that has fitted us for the world we actually exist in, would have equally fitted us for that. Probably, in the planets we distinguish, and in those that we cannot, different forms and laws of life may include some approach to individual perpetuity. It is certain that we form

but an atom in the Universe, and what blasphemous folly it is in us, to erect our ignorance as the tribunal for the arraigning of our God.

In the last few pages of the treatise from which we are shortly to part, Dr. Prout offers some admirable reflections on the province and the prospects of chemistry. It always gives us the highest pleasure to enforce what we consider philosophical habits of thought. Amongst the readers of this, as of all medical journals, there must necessarily be many of imperfect education, of limited opportunities, whose habits of observation were never directed by an acquaintance with the higher laws of reasoning, and whose conclusions are not likely to spring from very exact investigation, or to be regulated by a very philosophical spirit. We regret to perceive in few of our medical works the disposition to imbue the mass of the profession with the spirit we allude to. We commonly distinguish little of that elevated sentiment, which, raising itself above its immediate object, aspires to inculcate the more intellectual habits of action and thought. The pages of our periodicals, too, are often occupied with the passions and the prejudices of the day; and even if party considerations are disregarded, the critic seldom rises above the mediocrity of the occasion. Were there nothing to correct this in medical periodical literature, it would be a subject of serious regret. But we trust that, with the advance of literature and of science, a higher tone of professional criticism will prevail, and that medical journals will not be behind those devoted to the diffusion of general knowledge. Authors who feel the severity of criticism, are too apt to impute it to any cause but the real one, and to construe into personal attacks, and attribute to personal feelings, remarks that have their origin in the plan of conduct and temper of mind to which we have alluded. But, if the critic is honest, his intentions, in the long run, will not be misconceived, and temporary misrepresentation is of little moment. But to return to the prospects of animal chemistry.

Chemistry must be considered intermediate between a science of quantity, and one of exclusive experience. Any science of quantity is, of course, demonstrative—one of experience is empirical—and, in proportion as any branch of knowledge approaches to the one or to the other, it acquires the peculiar character of either.

As demonstrative science is most certain and satisfactory, the more demonstrative a science can be made the better.

In the case of organic chemistry, the more we can bring it under the dominion of the laws of quantity, the more fixed our results will be, and the more we shall be enabled to reason from results obtained, to those which are to come.

For, a science of quantity has this advantage over one which is empirical, that we can calculate results beforehand, and, from known premises, obtain yet unknown consequences. Hence the splendid effects of analysis in the hands of the modern French algebrasts.

Physiology embraces facts and phenomena. The facts are to a certain degree quantitative—to a still greater degree experimental. The phenomena are almost exclusively vital, and not determinable by quantitative laws. The application of chemistry to physiological investigations has done very much for the increase of our knowledge; for it has tended to separate the

quantitative from the experimental facts, and it has given to the latter as much certainty as, from the nature of things, they will admit of.

We say as much certainty as they will admit of. For observe the different circumstances in which the pursuit of positive and of experimental knowledge is placed. Quantitative facts once made out, are susceptible at any time of confirmation. But experimental facts are ascertained by observation, and only supported by testimony. The observation may be imperfect, or absolutely false, the testimony may also be one or the other. Admission of such facts is dangerous—their refutation is troublesome, and may not be possible, because, as experiment presupposes opportunity and concurrent circumstances, such opportunity and circumstances may be inaccessible. And this is the cause of the disputes, the dogmas, the revolutions that have distinguished physiology hitherto, and which, in some measure, must continue to infest it.

It is, therefore, an object of the highest moment to apply chemistry, as much as possible, to the investigation of the nature of organic bodies. What quantitative, what exact knowledge is possible, has been and will be chiefly obtained through its means. But two things are requisite on the part of the chemical enquirer—accurate observation, and fidelity of report. We cannot do better than terminate these remarks with the following passage from our author.

"The progress that chemistry, within these few years, has made, is truly astonishing; and when a more rigorous mode of observation shall be adopted—in short, when chemistry shall be brought more under the control of the laws of quantity—a control that will be exercised, at least indirectly—it is impossible to foretell the degree of perfection which chemistry, as a science, may attain. But, for many years yet to come, the progress of chemistry must depend solely on experiment; and its cultivators must be satisfied with the comparatively humble office, of discovering the actual chemical changes which bodies effect on each other.

Since, then, in knowledge derived from observation, an acquaintance with *what exists* and with *what is done*, is indispensable, to obtain a clear, accurate, and unequivocal conception of these things, is the first duty of every observer, and of every experimentalist. Nor is there any observer or experimentalist, however unpretending, who may not add to the stock of ascertained facts; so varied and inexhaustible are the stores of nature. Another duty of every one who engages in observation or experiment, is to become the faithful historian of what he witnesses; to narrate the event or phenomenon in plain and intelligible language, employing only terms of a definite meaning, so as to convey to others a just notion of what he has seen. We say a *just* notion; in the greater number of instances, a *perfect* notion is impossible, because what is seen cannot be expressed by language. But to give a just notion; that is to say, a notion which, though incomplete, *has no foreign or false gloss*, is within the power of every observer: and to give such a notion of the facts he narrates, ought to be his chief study. One testimony of so faithful a witness is often invaluable, and worth a thousand vague and inaccurate observations, which are only calculated to bewilder or to mislead, and thus are worse than useless.

The next rule which an interpreter of nature should bear in mind, is *not to attempt too much at first*; but in order to establish a sure foundation for his succeeding labours, he ought to be content with obvious and unexceptionable facts, and so to arrange these facts as to lead to others. To elicit novel and prominent facts is the lot of few; and any one may happen to be so successful. But

all, as before stated, may *investigate truth;* and thus contribute more or less towards the advancement of knowledge. Moreover, the humblest contributors may rest assured, that they are imperceptibly raising a structure, which will sooner or later include the conspicuous labours of their more fortunate coadjutors; in which structure, these labours will indeed still appear conspicuous, though their importance will be diminished as the fabric is extended around them." 548.

With this quotation we conclude. We have derived much pleasure, and not a little information, from travelling through the organic world with so instructive and amiable a companion. The labours of Dr. Prout will be every day more fully appreciated by the profession—labours which have done much to philosophize our acquaintance with those departments of organic chemistry, and of pathology, to the elucidation of which they have been directed.

A DICTIONARY OF TERMS EMPLOYED BY THE FRENCH IN ANATOMY, PHYSIOLOGY, PATHOLOGY, PRACTICAL MEDICINE, SURGERY, MIDWIFERY, PHARMACY, MEDICAL ZOOLOGY, BOTANY, AND CHEMISTRY; with their Derivations from the Greek and Latin—their Synonyms in the Greek, Latin, French, German, and English; and Illustrations in the different Languages. By *Shirley Palmer*, M.D. Part II. pp. 160, 8vo. Barlow, Birmingham; Longman and Co. 1836.

WE return with particular and unfeigned satisfaction to the study of Dr. Palmer's "*Dictionary of Terms;*" and, for the purpose of awakening a congenial spirit in our readers, we open this article with expressing our deliberate and sincere opinion—that this second part of the Doctor's book excels its valuable predecessor in several respects; and, at the same time, it constitutes an additional pledge that, when the work shall have been completed, it will remain a perpetual memorial of its author's learning, industry, high talent, and experience, and likewise prove an inestimable contribution to the advancement and diffusion of useful medical knowledge. Without farther preface, then, we proceed to adduce the evidences on which our opinion is founded; and these evidences shall consist of extracts from the pages of this elaborate and most instructive Dictionary.

Part II. begins with "*Corné,*" and ends with "*Huit de Chiffre,*" the figure-of-8 bandage, and its applications. At "*Corps,*" there is a very comprehensive and important article, containing a brief but luminous view of the different senses in which this term is employed, in natural history, chemistry, anatomy, pathology, and botany. Dr. Palmer describes "*crampe,*" spasm, as a sudden, involuntary, and most painful contraction of one or more muscles, especially those of the lower limbs; and, to his definition, he adds the following practical observations.

"The more ordinary causes of *cramp,* (he says) are exhaustion or fatigue, from inordinate exertion, or an unwonted attitude of the affected muscles. Some-

times, as in *colica pictonum* and *cholera*, the affection is sympathetic of intestinal torpor or irritation. Anodyne frictions, and the application of a tight bandage around the suffering limb, constitute its most effectual remedies. If, as frequently happens, spasm of the stomach, or of any other internal organ or external member, arise from spinal irritation or disease, nothing," the Doctor adds emphatically, and most justly, "but attention to the source of the complaint, can permanently remove or avert the painful consequences." 173.

Dr. Palmer has not exhibited his characteristic precision in his account of "*Craniologie*," skull-talk, "the *doctrine* of the *skull*." Craniology is that section of osteology in which the anatomist describes the entire skull, or its constituent bones and their relations. In the Dictionary, p. 174, however, it is restricted to "an exposition of the inferences which may be drawn from attentive examination of the prominences exhibited by the external surface of the *cranium*, relative to the propensities, moral dispositions, and intellectual faculties of an individual, according to the system of Dr. Gall." Now we infer from his Dictionary, that the learned Doctor's own cranium is composed of stouter stuff, and filled with better brains, than are the skulls of those gentle geniuses—*the Bumpists*—who delight in prattling about prominences; and therefore, as we guess, his definition of "craniology" is a piece of solemn waggery, intended as a quiet reproof for the polemical delinquencies of these facetious little philosophers. According to the system of Dr. Gall, "*craniology*" skull lore, is merely an exposition of the size and shape of the skull, as indicative of the dimensions and configuration of the brain, upon which, as a mould, the cranial bones are consecutively formed.

Cretinism is considered by Dr. P. as a disease endemic in the deeper valleys of different mountainous regions. It is—

"Characterized by extreme moral degradation, and defective configuration *(defective size)* of certain portions of the brain. The disease is hereditary, and may be developed in the children of parents suffering from bronchocele. Residence in the lowest ranges of the Alpine valley, where the air does not circulate freely, is apparently its principal cause. To this may be added, habitual neglect of cleanliness, and a crowded condition and humidity of the dwelling-houses. By some authors it has, without sufficient evidence, been attributed to the dietetic employment of snow-water, and the abuse of alcoholic liquids. That variety of it which originates from malformation is obviously incurable. Prevention consists in properly ventilating, and rendering more dry, the habitations of the poor; in cutting down plantations and draining stagnant waters; and especially in removing children from situations in which the disease is endemic." The Doctor regards "the frequent co-existence of cretinism with bronchocele as a remarkable circumstance in the history of these affections."

On the subject "*crotale*," p. 182, we meet with the following curious observations. The individuals constituting this family *(the crotaloides)* are sufficiently distinguished from all others, as the name imports, by the curious apparatus with which the tail is furnished. It consists of many loosely articulated, horn-like pieces, varying in number according to the age and species, and emitting a distinct and even loud sound on the motion of the animal. One joint of the *rattle* is said to be annually formed, up to a certain period of life. Each superior maxillary bone of this snake exhibits one curved tooth, pointed, perforated in its whole length, and connected with a lobulated gland which secretes the poison. Behind this poison-tooth, there are situated several germs destined to supply its place, in the event of loss or

fracture: when at rest, it lies concealed in a fold of the gum. Two muscles, which serve to depress the bone wherein the tooth is immovably fixed, at the moment of bringing the latter into action, exercise a pressure on the secretory organ, and thus propel the poison to the base of the tooth, from which it is conveyed, through the central canal, into the wound inflicted by this formidable instrument. A nictitating membrane exists in the eye: the mouth is large, and the tongue lies partly inclosed in a sheath, and is forked at the extremity. The crotali are viviparous, and exhibit great tenacity of life. The powers of fascination which they in common with some other serpents, are said to exercise on the animals destined to become their prey, have not yet been satisfactorily explained, nor even demonstrated. By some authors, the phenomenon is ascribed to the stupifying effects of the offensive and narcotic effluvium which the bodies of these serpents exhale. They pass rapidly into putrefaction after death; but the tooth, even, retains its virulent properties. The poison is of a green colour. They who recover from its fatal effects, commonly experience, for life, local œdema, periodical pains, hæmorrhages, and weakness or paralysis of the bitten part. The negroes, wild hogs, and birds of prey, feed on the rattle-snake, with impunity.

Crypte, follicle or crypt, is represented as an anatomical term applied to minute, rounded, lenticular, and hollow bodies, situated in the substance of the skin and mucous membranes. They are destined to pour out, upon the surface, from a small orifice, different fluids secreted in the interior. From the *nature* of the *fluid*, they are mucous, sebaceous, unguinous, and ceruminous. From their *situation*, they are cutaneous, ciliary, auricular, labial, palatine, bronchial, œsophageal, gastric, intestinal, vesical, urethral, vaginal and uterine. From their *peculiar disposition*, they are *simple*, as those of the skin and many of the mucous membranes: they are *agglomerate*, as the arytænoid crypts, and those of the palate and lachrymal caruncle: and they are *compound*, as the prostate, amygdalæ, the lacunæ of the rectum and urethra, and the foramen cæcum of the tongue. The crypts serve to keep the various parts in a moist and supple state, and to protect them from the irritating action of the different bodies which come in contact with them. In many diseases, especially those of the mucous membranes, the crypts exhibit great alterations in their figure, volume and secretions. The state of these little organs should never be overlooked, in the processes of a necrotomical inspection.

Dogmatism, at p. 212, is said to be a system or theory, among the ancients, resulting from the application of philosophy, and physical and chemical theories, to medicine. The Dogmatists were, consequently, opposed to the empirics, who professed to take experience alone for their guide. At "*Foie*," p. 273, the doctor describes the liver as a large abdominal gland, the organ of the biliary secretion; existing under divers modifications of form and structure, in all the animal series, from man to the molluscum. The liver exhibits the peculiarity of receiving, by a distinct apparatus of veins—*the vena porta*—all the returning blood from the chylopoietic organs. The purposes of this disposition are unknown. Venous blood, Dr. P. says, is not essentially requisite for the secretion of bile, since this fluid exists in the mollusca where the vena-portal system is deficient; and it was found in a human subject in whom the vena portarum passed to the vena cava, without entering the liver: besides, the large quantity of blood

supplied to the organ by the hepatic artery, would seem to be more than sufficient for the mere purposes of its nutrition.

Dr. Palmer designates homme, homo, man, as the only real biped of the mammiferous class. He alone, gifted with the power of language, is capable of communicating his ideas and emotions, by conventional sounds and signs. His brain is much more complicated, and more fully developed in its anterior portion, than that of other animals. None of the *Quadrumana* possess, like him, a peculiar muscle for the extension of the fore-finger: he alone prepares his food, by subjecting it to the action of fire: and, having acquired the means of protecting his body, by artificial coverings, from the influence of atmospheric vicissitudes, he is fitted to inhabit every accessible region of the globe. The species, the only one of the genus to which he belongs, exhibits the six following races, the Caucasian, Hyperborean, Mongolian, American, Malagan, and Negro or Ethiopian; and each of these is distinguishable by peculiar characters drawn from the figure of the skull, the features of the face, texture of the hair, and colour of the skin.

We might enlarge our list of extracts; but, finding it necessary to close it here, we will conclude with the observation,—that Dr. Palmer's Dictionary should be made a familiar *Vade-Mecum* by every student of the healing art in its manifold departments, and that it will prove an unrivalled acquisition to the libraries of those in whom the pressure of time and care has limited the recollection of elementary medical philology.

PATHOLOGICAL ANATOMY.

ILLUSTRATIONS OF THE ELEMENTARY FORMS OF DISEASE. By *Robert Carswell*, M.D. Professor of Pathological Anatomy in the University of London, &c. &c. Fasciculus Tenth. ATROPHY.

The subject of this Fasciculus is an important one, and a connected view of the different modes and sources of atrophy, in the different organs and tissues of the body, cannot fail to interest as well as to instruct.

The definition of atrophy is simple, though not strictly correct:—it is the diminution in the quantity of the solid materials of the part, below the normal standard. Decrease of bulk constitutes, therefore, the essential physical character of atrophy, which is occasioned by a defective exercise of the function of nutrition.

Dr. Carswell glances first at the nature, origin, and causes of atrophy in general; and then treats, seriatim, of atrophy arising from a diminished supply of blood—atrophy from the diminished exercise of the function of innervation—and, finally, atrophy from the diminished exercise of the functions of an organ.

NATURE, ORIGIN, AND CAUSES OF ATROPHY.

Atrophy occurs under a great variety of circumstances. What are called monstrosities are often only forms of congenital atrophy, the development of

particular organs or parts being at some time arrested in the embryo. Atrophy is in some instances a natural process. The organs required for the fœtal mode of existence, which are not essential after birth, waste, and are partially or totally absorbed. Thus the ductus arteriosus and the umbilical vein become converted into impervious cords. The vesicula alba and the omphalo-mesenteric vessels, which exist in the earlier periods of the embryo, are lost before birth. The thymus gland diminishes after birth and finally almost disappears. All these are examples of natural atrophy.

There is another kind of atrophy, the result of the laws imposed by nature, independently of actual morbid processes. It is the wasting of organs or of component parts of them, which occurs in advanced life, and makes the gradual decay of the organic being. An important instance of this kind of atrophy is cited by Dr. Carswell. It is well known, he says, that the solid bulk or weight of the lungs in old people suffers very great diminution, in consequence of atrophy of the walls of the air-cells and minute bronchial tubes, a change which may take place in separate portions or throughout the greater part of both lungs, and which may be carried to such an extent as to efface almost entirely the vesicular structure of these organs. The tendency to this kind of atrophy appears to manifest itself soon after the adult period of life, by an increase in the dimensions of the air-cells, which have become considerably larger than they are in youth, and much more so than in childhood, the increase in their capacity being, however, accompanied by a corresponding diminution in the thickness of their walls. As the atrophy advances with the increase of age, portions, or the whole of the walls of a greater or less number of the continuous air-cells and corresponding bronchial tubes disappear, and give rise to the formation of a loose, irregular, cellular structure, in which no trace of the vesicular character of the lungs is perceptible. The cells thus formed vary from the size of hemp-seed to that of a pea or more, and are intercepted by imperfect septa, on which but few bloodvessels are conspicuous. The substance of the lungs is of a dark colour, from the languid circulation of the blood through them, and the imperfect decarbonization of this fluid, as a necessary consequence of these changes, and which also extend their influence to the form and dimensions of the thorax, both of which, as well as the functions of respiration and circulation, and the temperature of the body, are variously modified.

It is questionable, perhaps, whether atrophy is a term fairly applicable to this dilatation of the pulmonary cells—a dilatation clearly the consequence of mechanical agency and of weakened vital powers. Provided, however, the student understands the nature of the alteration, and does not allow words to influence his ideas improperly, it matters not if the affection be denominated atrophy or not.

Dr. Carswell proceeds to state that, according to M. Ribes, the spongy structure of the penis undergoes changes, analogous to those observed in the lungs. The spleen is often much diminished in size, when it is hard, and composed chiefly of a cellulo-fibrous tissue and obliterated blood-vessels. Glandular organs, more especially the testes, lymphatic and mammary glands, are greatly reduced in size in some old people. The uterus is shrunk and very hard, and the ovaries are often transformed into a small mass of corrugated cellulo-fibrous tissue. The bones in general lose much of their weight, and become spongy and fragile; portions of some thick flat bones are reduced to a thin diaphanous plate; and fracture of the neck of

the thigh-bone appears sometimes to have occurred in consequence of senile atrophy. The brain, spinal cord, and nerves participate in the general decay of old age; the brain, after seventy, according to Desmoulins, being diminished from one fiftieth to one-twentieth of its average weight, at the same time that it is specifically lighter than at forty years of age, and that the trunks and branches of the nerves are considerably less in size than in the adult. The longitudinal and transverse diameters of the brain in old age are stated by Cazauviehle to be several lines less than in the adult, and that the size of the corpora striata, optic thalami, and pons varolii, is sensibly diminished, whilst that of the cerebellum remains unaltered, even at the most advanced period of life. The muscles, especially those of voluntary motion, waste in old age, and the vascular system suffers in its turn and in its way.

Atrophy, occurring after birth, may either affect the whole body, when it is termed emaciation, marasmus, &c.—or it may take place in particular parts, as a permanent and bonâ fide pathological condition. The former is merely a symptom, the consequence of various affections—the latter it is which deserves methodical consideration.

Local atrophy, then, may, in reference to the causes which give rise to it, be divided into three forms:—1, atrophy from a diminished supply of blood; 2, atrophy, from the diminished exercise of the function of innervation; 3, atrophy, from the diminished exercise of the functions of an organ.

I. ATROPHY FROM A DIMINISHED SUPPLY OF BLOOD.

It would be natural to anticipate à priori, that a diminution in the quantity of arterial blood required for the growth or perfect performance of the functions of an organ would be likely to occasion atrophy. This is found to be the fact. More or less atrophy of the brain occurs in some cases of ossification of the carotid and vertebral arteries within the cranium; in the spleen, the uterus, &c. from the same morbid condition of their respective arteries; and not unfrequently in the inferior extremities, from this and other diseased states which interrupt the circulation of the blood through the larger arteries of these parts. Complete atrophy of the testicles follows obliteration, from disease, of the spermatic arteries, and from ligature of these vessels for the cure of varicocele. Tumors are sometimes treated on this principle; their main arteries being tied, or attempts being made to effect more or less obliteration of their vessels by punctures, incisions, and so forth.

Compression, from interruption to the capillary circulation, occasions an atrophied condition of the part compressed. The feet in some women, especially the Chinese, the inferior part of the thorax in females who lace tightly, are instances of this description. In some old women, who secure their petticoats around their waists by a string, a deep groove is found on the surface of the liver, sometimes from half an inch to an inch in depth. The compression exercised by tumors is known well enough to occasion it. The ribs or the vertebræ may be extensively absorbed from the pressure of an aneurysm, or of a morbid growth. Serous cysts in the kidney, or accumulations of urine or of pus in its pelvis or infundibula, occasionally produce an almost total disappearance of the glandular structure.

Dr. Carswell describes the atrophied state of the brain, not very uncommon in old persons. But, in our notice of Dr. Sims's paper,* we alluded so fully to the subject, that we need not re-enter on its consideration at present. Atrophy of the spinal cord is observed in conjunction with atrophy of the cerebral convolutions, and depends on the same causes.

"The accumulation of air in the vesicular structure of the lungs, known under the appellation of pulmonary emphysema, gives rise on the same principle to a particular form of atrophy of these organs. Thickening of the mucous membrane of the smaller bronchi in particular, the retention of inspissated mucus, compression and stricture of these tubes, violent and frequently repeated attacks of coughing, and efforts of every kind which prevent the free exit of the inspired air, are the causes of this form of atrophy. Acting as mechanical obstacles, they impede the transmission of the air through the bronchi both during inspiration and expiration; but the muscles of the former being much more powerful in their operation than those of the latter, introduce a greater quantity of air into the air-cells than can be expelled at the subsequent expiration, which therefore gradually accumulates in them, distends them mechanically and ruptures them, or by the compression which it exercises on their capillary circulation, destroys them by a slow process of atrophy. It is only, however, when the emphysema is great in degree that atrophy contributes to its production, or rather its further increase. This is best seen in those cases in which a portion of emphysematous lung projects considerably, as frequently happens when it occupies the summit or anterior border of this organ. When emphysema depends simply on dilatation of the air-cells, it may occupy only a portion or the whole of one or both lungs; but when rupture of the air-cells has taken place to a great extent, whether from distention or atrophy, it is generally confined to a limited number of lobules. In the former case the air-cells acquire the size of millet-seed, hemp-seed, or a small pea, the bulk of one or both lungs being at the same time, proportionally increased; in the latter, several of them, or even a few contiguous lobes are thrown into one cavity, sometimes sufficiently large to contain a pigeon's egg, presenting a number of laminated and filamentous intersections, which divide it partially into irregular compartments. It is, therefore, as I have stated, only in this variety of pulmonary emphysema, which is a chronic affection, that atrophy is conspicuous. It is not observed in interlobular emphysema, which is an acute affection, as the air is absorbed before it has time to produce atrophy by compression." 6.

Dr. Carswell goes on to state, that there is a form of dilatation of the bronchi which presents a remarkable example of atrophy. It sometimes, he says, occupies bronchi of considerable size, but much more frequently the small ramifications or terminations of these, which are dilated into the form of globular sacs, varying from the size of a pea to that of a walnut. Some of them consist of a uniform smooth cavity; others present several anfractuosities, which generally happens when a number of contiguous tubes communicate with each other in consequence of complete atrophy of a portion of their walls. In this case they might be confounded with emphysema, were it not for the nature of their contents, which consist always of a viscid, straw-coloured, muco-puriform secretion. The tenuity of their walls is such, that Laennec has aptly compared them to the outer skin of an onion, and through which the colour and vesicular structure of the lung is seen as distinctly as beneath the transparent pleura. Their lining or mucous membrane is re-

* Vide No. 47.

markably smooth, sometimes of a red, but more generally of its natural colour, and is much more tenacious than healthy mucous tissue. This form of dilatation is generally confined to a small number of bronchial tubes: but it sometimes affects the greater part of a lobe, generally the upper, the vesicular structure of which is compressed, deprived of air, and in that state of flaccidity which it presents in the case of chronic pleurisy with effusion.

The last mode in which atrophy is occasioned, by obstruction to the circulation of blood in the capillaries—the last mode, at least, which requires particular notice, is a curious one. It is the formation of a contractile fibrous tissue on the surface of some organs, and in the interior of others. Thus, in chronic pleurisy, lymph and serous or purulent fluids are poured out, occupying the pleural cavity, and investing the surface of the pleura pulmonalis. The fluid may be absorbed, but the lymph on the pulmonary pleura remains. It becomes organized and ultimately converted into a strong fibrous membrane partially or generally covering the pleura, and producing partial or general compression, and atrophy of the pulmonary tissue.

In chronic peritonitis the same compression, and the same bad consequences follow the same cause. The stomach, intestines, and spleen seem girt by an unyielding cincture of fibrous tissue, binding them to the spine, limiting their capacity, and giving rise to the effects of stricture more or less complete on the intestinal canal. The spleen not unfrequently becomes individually surrounded with a thickened and fibrous capsule, when it is usually seen of small size. This capsule may be converted into cartilage or bone.

Dr. Carswell places in the same category stricture of the œsophagus and intestines, resulting from the cicatrization of ulcers that have affected their muscular tunic. He remarks that he has met with several fatal cases of stricture of the intestines produced by cicatrices formed of this tissue, and succeeding to ulceration, originally situated in the glands of Peyer, which had destroyed the muscular coat around the whole circumference of the tube in that portion of it occupied by these glands. The patients had left the hospital in a state of imperfect convalescence from typhoid fever, and returned some months, in one case more than twelve months after, with all the symptoms of ileus, the progressive development and increasing severity of which, as the constriction of the tube advanced, were strikingly illustrated by the history of the cases, and left no doubt as to the nature and cause of the disease. We may pause to observe that the term atrophy has a large grasp in modern pathology. Diminution of substances, no matter how occasioned, receives this name. The student would be at first surprised if he heard that a lung compressed by pleurisy, and apparently dilated by enlarged bronchial tubes, was equally considered atrophic—and when he passed from the dilated bronchus to a strictured œsophagus, and was informed that he witnessed atrophy still, his wonderment would probably increase. But a little consideration would shew him that in strict propriety, and in its wide acceptation, atrophy exists in all these cases, and he would perceive the advantage of these pathological generalizations, which serve to correct by enlarging our views of the effects of morbid actions. Yet this very circumstance renders the present work more adapted for the man who has made some advances in the science, than for the student who is just upon its threshold.

Our author instances as a remarkable example of the atrophy of organs from the development of the contractile fibrous tissue in their interior, that affection of the liver which has been designated cirrhosis. His description of its appearance and its causes is precise, but would be scarcely understood by those who are unacquainted with the terms employed by Mr. Kiernan in his account of the anatomy of the organ. We shall therefore give only the principal heads of Dr. Carswell's statements.

The liver, when affected with atrophy from this cause, is sometimes reduced to a fourth of its normal dimensions; its consistence generally increases with the diminution of its bulk; it appears shrunk, and has an irregularly rounded form, particularly at its edges, and the whole of its external surface is raised into round flat projections, varying from the size of hempseed to that of a pea, or even a small cherry. Examined more narrowly, the round flat projections are found to be composed of several smaller ones, and these, again, of the individual lobules of the liver; so that the larger projections are formed of aggregated groups of lobules, each separated the one from the other by cellulo-fibrous or fibrous tissue, the quantity of which varies considerably, and is always greatest between the largest groups of lobules. On making a section of the liver, the fibrous tissue is found to form a conspicuous feature in it: for its quantity is greater than that of the lobular structure, and its white or grey colonr contrasts strongly with the rust, yellowish, or greenish brown tint of the lobules. On pursuing the examination with more accuracy and minuteness, it is found that the fibrous tissue surrounds the portal veins, occupying their sheath, and both compressing those veins themselves and the lobules of the organ into which they pass. In the earlier stage of the disease the quantity of fibrous tissue is, of course, comparatively small—it increases with the progress of the malady—and in some instances it ends by effecting the almost entire removal of the natural structure of the organ. Such is the sum of Dr. Carswell's laborious account of this disease, which, from the rust colour of the liver, was named by Laennec cirrhosis, and which he considered as depending on the development of a new tissue of a peculiar description. The different colours which the liver presents are derived from the varying quantities of blood and bile accumulated in the lobules. The rust-brown and orange colours are most common at the commencement, the greenish brown towards the conclusion.

"In some cases of cirrhosis, the obstruction to the circulation of the blood through the portal veins gives rise to appearances very different from those which I have described as characterising this affection. As these vessels are compressed and narrowed in the manner I have stated, they are generally found to contain only a small quantity of blood after death. It occasionally happens, however, that they are filled or distended with a mixture of coagulated blood, fibrine, and bile, the presence of the two former in particular indicating that the circulation must have almost entirely ceased before death. In three cases of this kind which I have met with, the whole of the portal system, from the commencement of its trunk to its termination in the lobules, was in this state. A great many of the portal veins, both large and small, were enormously dilated, and some of the smaller ones appeared to be ruptured, so that, when cut across, they presented the appearance of bloody tumours or fungous hæmatodes, scattered throughout the substance of the liver." 12.

The nature of cirrhosis affords a satisfactory explanation of the ascites, which, in greater or less quantity, is its constant attendant, and increases as it proceeds.

We now terminate the consideration of the first variety of atrophy, and proceed to that of the second.

II. ATROPHY FROM THE DIMINISHED EXERCISE OF THE FUNCTION OF INNERVATION.

We do not know the kind nor the amount of influence exerted by the nervous mass on the function of nutrition. But that that influence is considerable, is proved by the atrophy that follows various diseases or injuries of the brain, spinal chord, or nerves. The wasting of the limbs or even entire side of the body in hemiplegia is well known, and greater than the mere disuse of the muscles on that side would account for. Compression of the main nerves of a limb produces extreme atrophy. This is seen after dislocations of the shoulder, in which the brachial plexus has been pressed on.

A remarkable case of atrophy of the right inferior extremity, from injury of the crural and sciatic nerves on that side, is recorded by Lobstein, which he observed in a man fifty-four years of age, who was thrown down in the street when a child. The right limb became soon after feeble, and gradually diminished in bulk as he advanced in years. The muscles, when examined after death, were pale, and reduced to the form of a fleshy membrane; the gastrocnemius and soleus muscles weighed only two ounces and six drachms, whilst those of the healthy limb weighed nearly eight ounces; the bones of the right side of the pelvis were considerably reduced in size and thickness; the right femur weighed only three ounces two drachms and a half, whilst that of the opposite side weighed nearly five ounces seven drachms.

III. ATROPHY FROM THE DIMINISHED EXERCISE OF THE FUNCTIONS OF AN ORGAN.

The wasting of voluntary muscles when disused is too familiar to require to be dwelt on. The involuntary muscles waste by the same law under the same circumstances. In cases of artificial anus, the muscular tunic of that portion of intestine through which the aliment has long ceased to pass is reduced to a thin transparent membrane.

"Causes which permanently interrupt the passage of the air through the bronchi, as tumours which compress these tubes, accidental products contained within them, cicatrization and construction of their walls, or which prevent for a considerable length of time the free and full expansion of the lungs, as incidental fluid and solid products contained within the cavity of the pleura, vicious modes of dress, as well as those occupations and habits which limit the action of the respiratory muscles, or which retain these organs in a state of comparative inactivity, give rise to partial or general diminution of bulk of one or both lungs. When a portion of the bronchial tube becomes obliterated by any of the

causes which have been enumerated, the remaining portion of it, or the terminal branches of which it is composed, frequently undergo a gradual diminution of bulk, become likewise obliterated, and are ultimately converted into solid fibrous cords. Sometimes only one bronchus, but more frequently several bronchi, either in one or both lungs, are found obliterated in this manner, and the portions of pulmonary tissue to which they are distributed entirely deprived of air, collapsed, flaccid, and atrophied. An interesting memoir has lately been published by my friend Mons. Reynaud, illustrating several of the forms of this kind of atrophy, or rather *obliteration* of the bronchi, which he has shewn to be much more frequent in its occurrence than had been supposed by other pathologists. The bronchial tubes thus effected are seldom larger than those of the third or fourth order, and, therefore, the atrophy which takes place in consequence of their obliteration is seldom accompanied by a marked diminution in the bulk of the lungs, unless several of them are simultaneously affected. When this happens, however, an obvious diminution of bulk of the affected lung is observable, the external surface of which presents an irregular, lobulated appearance, in consequence of the healthy portions of the pulmonary tissue into which the air is freely admitted, being raised above those from which it is excluded, or which are in a state of atrophy, from the impervious condition of their bronchi."

Not unfrequently, in children, the larger bronchial tubes are compressed by tuberculated glands. But although the respiratory function is interfered with, Dr. Carswell is not aware of atrophy of the pulmonary tissue having been observed. He saw, however, an instance of this in a monkey that he examined along with Mons. Reynaud. The left division of the trachea was surrounded by a mass of tuberculated bronchial glands as large as a walnut, in the centre of which it was imbedded, and so compressed as to be rendered completely impervious to the passage of the air. The corresponding lung was reduced to nearly one-fourth of the size of the other, and as the cavity of the pleura contained no fluid, the parietes of the chest on this side were depressed in the same manner, as in cases of chronic pleurisy with permanent compression of the lung, after absorption of the effused fluid. Both lungs were crowded with groups of tubercles of various sizes, and the right, that by means of which the function of respiration had been for some considerable time exclusively performed, was extensively emphysematous.

Atrophy of the gall-bladder from interference with the performance of its function has been often noticed. Dr. Carswell has seen it arise either from obliteration of the cystic duct by enlarged lymphatic glands, or from a preternatural communication existing between the gall-bladder and a neighbouring portion of intestine. In the first instance no bile got into the former; in the second it was prevented from accumulating in it.

"The remaining organs requiring notice, in which atrophy occurs in consequence of the suspension or cessation of their special functions, are those of generation, especially the mammæ and testes, the brain, spinal chord, and nerves. It is well known that the mammæ seldom acquire the same magnitude in females who have not suckled as in those who have; and the great diminution which they undergo, when the exercise of their function is no longer required, affords a striking illustration of the influence of the suspension of a physiological act, in the production of atrophy. The testes, also, furnish us with examples of atrophy equally remarkable, although not always equally well understood. In persons who have spent their youth under the humiliating and blighting influence of certain monastic vows, the testes either remain in a state of imperfect development or become wasted; and Baron Larrey asserts that injuries of the cerebel-

lum, from wounds occupying the region of the occiput, are also followed, at some period after recovery, by atrophy of the testes. Although I am not aware that similar cases have been observed by other authors, it does not appear to me that there are any grounds for disbelieving the Baron's statement, more especially as it has been ascertained that the special function of these organs, if not dependent for its accomplishment on the physiological exercise of that of the cerebellum, is certainly either increased to a remarkable degree, or altogether controlled by various morbid conditions of this organ. Many examples have been recorded which prove that such a functional relationship exists between the testes and cerebellum; and I may add, in further confirmation of the fact, that I have met with two cases in particular, in which this relationship was manifested in a most remarkable manner. They occurred in two young men, from eighteen to twenty years of age, who reduced themselves to a state of the most appalling moral and physical degradation by the act of self-pollution. Both of them died from its effects; one of them having often declared that he was compelled towards the gratification of a desire which he had no power to control, for he had frequently attempted the consummation of it after the prepuce had been excised as a means of prevention, and when the glans and part of the penis were in a state of active inflammation. In each of these patients the cerebellum was the seat of a tumour as large as a hen's egg, composed entirely of the medullary sarcoma." 13.

These are certainly curious facts, and they appear to prove that the cerebellum is really concerned with the generative organs. Yet, on the other hand, abscesses and tumors have existed in the former without any material affection of the latter, and these may be disordered or diseased, without, apparently, disturbing the cerebellum. The most common cause of atrophy of the testes is masturbation. There can be no doubt of the frequency both of the vice and the consequence. We lately dissected two testes wasted from this cause. The proper fibrous tunic of the organ was rather thickened, as were its pillars. The lobules of the testis were diminished, but the tubuli were not, so far as we could see, diseased. In one testis (both were taken from the same individual) the globus minor of the epididymis was consolidated by thickening of the fibrous tissue, and the canal of the vas deferens was to all appearance impervious. On the whole we should say that the fibrous tissue both in the testis and epididymis was augmented, and that the glandular structure was greatly diminished. We could not succeed in injecting the rete in either testis; but those who know how frequently injections of the testicle are unsuccessful, will not attach much importance to this circumstance.

We have mentioned these particulars respecting the testis, because there are not many recorded dissections of the organ in a state of atrophy. Had we space we should feel disposed to relate a very interesting case, in which the testes, wasted to the dimensions of small nuts, were gradually restored to nearly their natural size and functions. That this fortunate result of treatment seldom happens, is due perhaps to the permanent contraction of the fibrous tissue which surrounds the tubular structure and permeates it.

Dr. Carswell, to whom we return, observes that there are no facts which prove that the brain, or particular portions of it, waste merely in consequence of diminished activity of function. It is only in cases of disease of the convolutions, that atrophy of the deeper parts is met with. In some of the instances of atrophy of the convolutions, which Dr. C. has seen occur in the general paralysis of the insane, the corpus striatum and optic thala-

mus were much diminished in size, either on one side or both, according as the former occupied one or both hemispheres; nor was the secondary occurrence of atrophy confined to these portions of the brain; it extended to the crura cerebri, pons Varolii, medulla oblongata, and spinal chord.

"I have met," says our author, "with two cases of a remarkable lesion of the spinal cord accompanied with atrophy. One of the patients was under the care of Mons. Louis, in the Hospital of La Pitié, the other under the care of Mons. Chomel, in the Hospital of La Charité, both of them affected with paralysis. I did not see either of the patients, but I could not ascertain that there was any thing in the character of the paralysis or the history of the cases, calculated to throw any light on the nature of the lesion found in the spinal cord. I have represented the appearances observed in one of these cases in Plate IV. *fig.* 4, in which the pons Varolii was also affected, and which convey an accurate idea of the physical characters of the lesion. In this case a distinct portion of the cord was affected with softening, which of itself would no doubt have accounted for the paralysis; but in the other case there was no other lesion present than that to which I allude, to which the paralysis could be attributed. The anterior surface of the spinal cord presented a number of spots, from a quarter of an inch to half an inch in breadth, of an irregular form, of a yellowish brown colour, smooth, glossy, without vascularity or any alteration in the colour or consistence of the surrounding medullary substance. The medullary substance thus affected was very firm, somewhat transparent, and atrophied. At the root of the medulla oblongata, these changes occupied the whole breadth of both the medullary fasciculi to the extent of half an inch in breadth from above downwards. Further down, they were confined to distinct spots on each fasciculus, and several of the same kind, but smaller, occupied the pons Varolii. The depth to which the medullary substance was affected in this manner varied from half a line to three or four lines, and on dividing the cord, it was seen to penetrate as far as the grey substance." 14.

It is singular, that the nerves of muscular organs which have long been paralysed, seldom present any material diminution of their bulk. Atrophy has been more frequently observed in the optic than in any other nerve, in consequence of disease or lesion of the organ to which it is distributed. The extent of the atrophy varies with that of the lesion of the eye, as well as with its duration. The atrophy, in the great majority of cases, is confined to that portion of the nerve situated between the eye and the optic commissure; and in those cases in which it extends beyond the latter point, the most generally received opinion is, that it is the nerve on the opposite side that is affected. When the atrophied nerve is examined, it is found to be variously reduced in bulk; the nervous matter in particular is very small in quantity, or has altogether disappeared. The cellular and fibrous tissues of the nerve, consequently, become more apparent, constitute, in some cases, the greater part of the nerve, or occupy, in others, its place, in the form of a fibro-cartilaginous cord.

This terminates the Fasciculus before us, at least it concludes the account of atrophy. The plates are, as usual, very beautiful, and highly creditable to the parties concerned. We may fairly say that the work has improved as it has proceeded—no mean recommendation. The author deserves all the encouragement that can possibly be bestowed upon him.

THE TRANSACTIONS OF THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION. Volume IV. Octavo, pp. 578. London, 1836.

THE present volume of the Provincial Society's Transactions exceeds in bulk, if not in value, all its predecessors. It is, indeed, a formidable tome; and the reader of nearly six hundred pages must congratulate himself, if the quality is in any degree proportioned to the quantity.

The manner in which the work is constructed, renders it improbable that its circulation will ever extend materially beyond the circle of the members of the Association. A considerable portion of its matter is possessed of little more than local and temporary interest. There are many Addresses—proceedings and reports of councils and committees—elaborate topographical disquisitions, that few persons will be so patient as to read—and biographies of gentlemen, who, although amiable and excellent, have not had the good fortune to make the world inquisitive respecting either their names or their career. These are all matters which swell the volume—which are not, perhaps, out of place in it—but which, from the nature of things, must give it a local character and circulation.

Its arrangement and contents are the following:—

It consists of a sort of prologue, which ushers in six parts.

In the prologue, we are presented with Proceedings at the Anniversary Meeting at Oxford—Introductory Address, by Dr. Kidd—Report of the Council—Reports of Committees.

The first part contains an Address, delivered at the third Anniversary Meeting by Dr. Prichard.

In the second part is an Account of the Autumnal Fevers, Epidemic Scarlatina, and Small-pox, which prevailed at Amsterdam in 1834, by Dr. Nieuwenhuys.

The third part is topographical, and contains an Account of Malvern, by Mr. Addison, and of the Hundred of Penwith, by Dr. Forbes.

The fourth part is devoted to essays and cases. We have here a paper on the Physiology and Pathology of Intermittents, by Dr. Cowan of Bath—a Memoir on the Mode of securely closing moist Spirit Preparations, by our able friend Mr. Crosse, of Norwich—Observations on some of the injurious Effects of the Secale Cornutum, by Mr. Chavasse—a Case of Neuralgia of the Uterus, by Dr. Holbrooke—on the Unity of Organic Structure, by Dr. Dick—on Hydrometra, by Mr. Coley—a Case of Disease of the Female Pudendum, by Mr. Brayne—a Case in which the Cæsarian Operation was performed, by Mr. Knowles—Records of Ovarian Tumors, by Dr. Barlow—a Case of Fungoid Tumor, succeeded by Melanosis, by Dr. Norris.

The fifth part is dedicated to Statistics, and Reports of Hospitals and Infirmaries. In it, we find Statistical Observations on the Medical Charities of England and Ireland, by Dr. Walker—a Report of the Cases of the Outpatients of the Birmingham Infirmary—a Report from the Birmingham Eye Infirmary, and a Report from the Norfolk and Norwich Hospital. Finally, we have the Biography of the late Mr. Jennings, of Leamington, by Dr. Conolly.

Such are the contents of the volume before us. Were it not that many of the papers, and very much of the matter, are not adapted for notice here, and not likely to be read by any but those immediately concerned, we should turn with despair from the attempt at analysing six hundred pages. Fortunately, so few of them slip through the critical sieve, that our labour in collecting the grain below will be reduced to a moderate task. Our readers will thank us for dispensing with all notice of the Biography, Topography, and the Addresses.

The first article at which we shall glance is the Report of Dr. Nieuwenhuys. It is possessed of interest, and has been drawn up with care.

ART. I.—AN ACCOUNT OF THE AUTUMNAL FEVERS, EPIDEMIC SCARLATINA, AND SMALL-POX, WHICH PREVAILED AT AMSTERDAM DURING THE YEAR 1834. By *C. J. Nieuwenhuys*, M.D. &c.

The year 1834 would seem to have been a fatal one in Amsterdam. Intermittent fever, scarlet fever, and small-pox, conspired to destroy the Dutch in that city. That year was remarkable for its uncommonly mild Winter, cool Spring, and uninterruptedly hot Summer, succeeded by a pleasant and moderately fruitful Autumn, followed again by a mild Winter. As the Dutch know to a proverb that "hot Summers bring forth rich church-yards," even the very populace felt that mischief was brewing for them.

That mischief was considerable, for in Amsterdam, Hoorn, Eukhuizen, and Alkmaar, the excess of deaths over births varied from 1-5th to 1-10th. These places are situated on a marshy ground. In Rotterdam, Utrecht, St. Gravenhague, and Dortrecht, where the soil is solid or sandy, the births preponderated over the deaths, in the ratio of from 1-3d to 1-10th. A good instance of the influence of soil upon salubrity.

1. *Intermittent Fever.* It was in August that the intermittent fever began to assume a formidable aspect, and in October it reached its height. About the middle of December, the fever decidedly decreased, and catarrhal affections seemed to take its place. A more precise account of the mortality from fever is furnished by the following table. The accuracy of the classification of the varieties is admitted by the author to be questionable.

Deaths from Fever in Amsterdam in 1834.

	Intermittents.	Bilious.	Catarrhal.	Total.
January	29	1	12	42
February	12	0	14	26
March	33	1	13	47
April	25	4	19	48
May	30	2	15	47
June	30	3	15	48
July	23	3	5	31
August	37	12	20	69
September	74	49	18	141
October	125	66	25	216
November	145	37	29	211
December	103	5	16	124
Total	666	183	201	1050

The population of Amsterdam amounts to 202,364 persons, and the mortality from fever was, therefore, 1 in 192, or 1 in 8 of the whole deaths. Further, observes Dr. Nienwenhuys, if we take a *third* of the 556, who died of *dropsy*, and place them to the account of these fevers, they yield a total of 1235; but if to this number we also add *one-fourth* of the 1239, classed as dying under the head *exhaustion*, (and in each case we shall probably not be *beyond* the truth) we obtain a total of 1530 who died from these fevers or their results, or nearly 1 in every 133 of the whole population. Yet the mortality from these diseases was not so great as in 1826, when the same fevers raged through a vast population of Holland, commencing at Groningen. In that year, out of a population of 200,784 in Amsterdam, these fevers swept away 2390 individuals, being 1 in every 84. Conclusive evidence this of the too common insalubrity of Holland. The following is the Doctor's description of the disease.

"In the commencement, these fevers were generally of an *intermitting* character; with some, however, they were *typhus remittens;* in many cases medical advice was not sought until they had become *sub-continued;* still an experienced eye could always recognise the *remittent* character. The *prodromi* in these fevers were, chilliness, which, sometimes trifling, was ascribed to the weather, listlessness, sickness with inclination to vomit, pain in the abdomen, and hypochondria; lastly, came the fever with coldness. It frequently came on also without any remarkable warnings, and then, in general, with violence. In children it was sometimes accompanied by fits; in persons of mature age, with violent symptoms, often with delirium. The tongue, at first slimy and whitish, became covered with a brown coat in the course of the fever, and at its acmé *black*. It was attended with violent pain at the *scrobiculus cordis*, oppression, particularly while the cold fit lasted, and extreme thirst. The motions were sometimes costive, sometimes relaxed; often there was a red sediment in the urine. If the progress of the disease was favourable, it mostly ended in a general perspiration, followed by lassitude, and, shortly after, by seeming tranquillity. It has been remarked, that the urine then discharged, left a white milky sediment, and that should the perspiration be but trifling, without this change in the urine, the fever remained obstinate, and the prognosis became unfavourable. I must acknowledge that I have not myself remarked these symptoms, but have observed a great tendency to debility, under every form of the disease; and if the fever were not quickly suppressed, but from antiquated prejudices was treated, in consequence of the foul tongue and the gastric symptoms, by *anti-gastrica*, it was rendered worse, and often ended in death; even the *first* and *second* attacks were much increased, and accompanied with lethargic and nervous symptoms, which were considered as indicative of congestion on the brain. Notwithstanding some bilious symptoms, such as vomiting of bile and a yellow tint of the eyes and skin, were observable, particularly as the epidemic increased, (about August) yet I seldom witnessed them in so high a degree, as to warrant the epithet *bilious fever:* in fact, they were the *result*, not the *cause*, of the disease. Neither was inflammatory affection of the liver discernible, nor could I perceive that the spleen had been attacked. The fevers often declared themselves under different forms—sometimes as *febris larvata;* I saw it commencing occasionally in children with convulsions; in adults with apoplectic symptoms; and, in some instances, it came on suddenly with delirium; *twice* I saw it commence with vomiting of blood, and *once* with uterine hæmorrhage. If these dangerous symptoms were not relieved, or if medical assistance was not sought in proper time, the consequences were commonly fatal. I have seen a determination of blood to the head accompany this fever, evinced by redness of the face and a disposition to drowsiness, and by *delirium taciturnum*, but which

symptoms vanished by aid of the specific used for the fever. Although I had no great reason to complain of *relapse*, yet examples of it were frequent, especially after an immoderate use of food, fatigue, and, above all, exposure to inclement or wet weather. Improper treatment or neglect was frequently followed by dropsy, affections of the abdominal viscera, and excessive exhaustion, which sent many to the grave." 68.

Such were the characters of the fever of 1834, the produce of the operation of a hot sun upon a marshy soil. Dr. Nieuwenhuys considers himself warranted in observing that if the disease was treated early the danger was not very great; but if allowed to become established, affections of the liver or spleen; chronic inflammation, or even abscess, of the intestines; dropsy; scurvy; and apoplexy, were the not unfrequent results.

The Doctor's treatment appears to have differed from that of many of his colleagues. It wears the aspect, philosophically speaking, of empiricism—that is, he gave one remedy, although the symptoms displayed great differences. When there was a foul and yellow tongue, violent oppression about the præcordia, and other indications of gastro-intestinal disturbance, many Dutch physicians prescribed emetics and purgatives. If, too, there were headache, flushed countenance, or lethargic tendency, they commenced with general or local bleeding before they exhibited quinine. But this, according to Dr. Nieuwenhuys, was a mistaken view, and he at once administered the specific medicine. Perhaps some of those excellent critics, whose experience enables them to pronounce on epidemics that they have not seen, and whose acquirements are such, that, although they may not have enjoyed many opportunities of practice, excepting those which the closet offers, they assure us that the profession is anxious to receive the law from their lips—perhaps, we say, these gentlemen may prove that Dr. Nieuwenhuys' notions are quite wrong, and that it is impossible he could have been successful. As the statement of that success, however, is only the expression of a fact, we must leave it as we find it.

2. *Scarlet Fever.* The annual average mortality from scarlet fever in Amsterdam, for forty years antecedent to 1834, was 72. The number of deaths in each year varied in a very marked degree, 18 persons only dying in one, and in another (1778) 369 having perished. Scarlet fever has been epidemic in Amsterdam in 1787, 1792, 1806, 1811, 1815, 1819, 1820. From 1821 to 1833, a period of 13 years, only 109 persons died of it.

But in 1834, it appeared with much virulence, and 498 individuals were carried off. It began as an epidemic in June, 1834. The number of deaths in each month of that year were—

In January.....	1	In August.....	50
February	0	September	78
March	0	October.....	136
April	1	November.....	106
May	4	December.....	61
June	22		
July	39	Total	498

The epidemic began amongst the lower classes, and ultimately attacked the higher. Dr. Nieuwenhuys entertains the reasonable opinion, that al-

though it was essentially epidemic in its origin and its diffusion, it might be, and it was, under favourable circumstances, contagious. He found, as with only a moderate scepticism he might have anticipated, belladonna of no use as a preventive.

"During the first months of its existence a subinflammatory complication was observable, but by the use of suitable remedies we succeeded tolerably well in subduing it. In addition to the usual sore throat, a *tracheitis* was sometimes remarked, which claimed much precaution, but after local bleeding it often happily subsided. In the latter months of 1834, a *nervous* form of the disease was undeniable, and demanded other treatment. In this form the throat was in a marked state of inflammation, and the membranes of the sensorium appeared to be much affected. Many sank under these symptoms, some so early as the third day, several before the eruption had diffused itself; in these cases it was only visible on the hands and neck. Bleeding, cold applications, &c. did not prevent this inflammation from terminating apparently in effusion; the sufferers nearly all died of this affection of the brain. I saw many cases of scarlatina, particularly in October and November, coexistent with *intermittent* fever, and in which, during the period of eruption, the fever decidedly intermitted, or, in some instances, became *sub-continued*. Fortunately, however, such forms of the disease were not general." 74.

In the majority of cases, the disease was either scarlatina simplex, or scarlatina anginosa, and did well under ordinary treatment. Dropsy was not an uncommon consequence, especially among the poor; and ulceration of the parotids, followed by deafness, was another sequela that was noticed. We see nothing to detain us in our author's account of the treatment he adopted. But the following extract is not uninteresting.

"It has been observed that some patients expired suddenly and unexpectedly during this epidemic, whilst, to the great astonishment of their relations, the physicians had sometimes held out but a few hours before, the most flattering hopes of recovery. In spite of every effort I was unable to discover the cause of this, until a similar misfortune occurred in my own practice, and which, I thought, accounted at least for some of these sudden deaths. Mr. C. a man 26 years of age and only six weeks married, had previously been tolerably healthy, but had complained of a pressure and contraction in the throat, resembling *globus hystericus*, and of a nervously sensitive constitution, was seized with sore throat on Wednesday evening, whilst supping with a friend. It continued the following day, on the evening of which I was called in, and found him in a high fever, which had come on with coldness. He was red all over. I prescribed a mixture *ex aq. sambuci, vino stabiato, acet. ammoniæ liquid., ex extr. cardui bened.* and a gargle of a decoction of figs. The next day, Friday, the fever was diminished, with continued eruption and extreme pain in the throat, which was red and swelled internally. To counteract this, I added a gargle *ex aq. rosarum et borace cum melle rosarum* to the foregoing medicines. In the evening the fever again exacerbated, coming on with coldness, increased sore throat, and continued *exanthema*, and lasting nearly the whole of the night. On the Saturday it went off as before, with perspiration. Two spoonfuls of a solution of quinine with *acidum muriaticum in aq. meliss.* was administered every two hours, and he seemed much better during the whole of the day; the *angina* was also so much better that he could be understood when he spoke. The same evening there was a slight exacerbation of fever, with increased sore throat and less redness. By continuing the remedies he became free from fever and sore throat on Sunday, and could swallow very well, but, according to his own description, was sensible of a strange contraction in the mouth, which hindered his speech. He said he

felt otherwise well. However, the pulse was very quick and scarcely to be felt, which I attributed to extreme weakness after so violent an attack. As far as could be seen in the throat, it was covered with a cheesy matter, and the swelling had disappeared. He felt so much better, seemed to gain a little appetite, and, indeed, appeared so decidedly mending, that I shared the joy of the happy couple, little suspecting the snake in the grass. I continued the medicines as well as the gargle, although in a less quantity, but at my second visit on the afternoon of that day, how mournfully did I find myself deceived! He was perfectly sensible, but could not speak, only uttering a hoarse, incomprehensible sound, yet seemed contented, and inclined to say much. The pulse was no longer to be felt; the throat was blackish without swelling, and left no doubt of gangrene. At nine o'clock that evening he was no more." 78.

Another case of nearly a similar sort occurring, Dr. Nieuwenhuys, instructed by the former, adopted the treatment calculated, in his opinion, to arrest the sloughing. A patient who had bad sore-throat, without eruption, was all at once relieved of pain, but could neither swallow nor gargle, and could speak indistinctly only. The pulse was quick and low. The right tonsil was covered with a blackish matter, and the uvula was not visible. Dr. N. requested the surgeon in attendance to syringe the throat with a solution of creosote in rose-water (8 drops of the former to 6 ozs. of the latter), and to continue its use during the night; in addition to this, a spoonful of *infusum arnicæ cum æthere acetico et camphorâ* was administered every hour. Next morning, the patient could swallow and gargle. The tonsil was still discoloured, but no longer gangrenous. The creosote water was now made stronger, and used as a gargle. The patient recovered.

Those persons who were kept in over-heated rooms were especially affected, according to our author, with anasarca and scorbutic affections.

3. *Small-Pox.* In 1834, Amsterdam lost 134 persons with the small-pox. Some had been vaccinated formerly, apparently in an effectual manner. The following observations on this head are characterised by good common sense. He remarks that, if a comparison be drawn between the deaths by small-pox before the vaccine was introduced—during the time of its introduction—and after it was introduced, the balance in favour of vaccination will be proved to be considerable. By dividing, he says, 30 years into three eras, we see that during the first era, before the vaccine was introduced (1785, 1794), 6304 died of small-pox; in the second era, during its introduction (1795, 1804), 5446; in the third era after its introduction (1805, 1814), 2533.

It appears from this table, that as the cow-pox inoculation increased, fewer died of small-pox; for instance, during the last ten years, in which vaccination was very general, 3771 fewer persons fell a sacrifice to small-pox than in the first, when the art was unknown in this country; which places the usefulness of this salutary preventive beyond a doubt, and does away with the objections of every unprejudiced mind. Looking over the deaths in a later era of ten years, that from 1811 to 1820, they only amounted to 1498. This is the broad and correct view to be taken of the case. If vaccination has not brought perfect immunity from small-pox, it has diminished its mortality in a wonderful degree; and humanity is more directly beholden to Jenner than to any man, conqueror or sage, who has exercised his talents in its service.

II. MEMOIR UPON THE METHOD OF SECURELY CLOSING MOIST ANATOMICAL PREPARATIONS, PRESERVED IN SPIRIT. By *John Green Crosse*, Esq. Surgeon to the Norfolk and Norwich Hospital, &c.

There are many things, which those who know them are apt to take for granted that other persons know, and which, consequently, are seldom generally explained or understood. The making of anatomical preparations is a piece of knowledge of this description. The curator of a museum, or an anatomical lecturer, has it at his fingers' ends, but the great majority of surgeons and physicians have no more notion of the proper way of making a spirit preparation, than they have of the square of the hypothenuse.

The consequence of this general ignorance is, that many valuable pathological specimens are not preserved at all, and that many more are preserved in a very imperfect manner. Our friends are constantly and kindly sending us preparations, which, from being improperly treated, are in most instances completely spoilt. This is a great pity, and affords an illustration of the observation that has been often made, that students neglect matters of daily occurrence, and, therefore, of great consequence, in their eagerness to witness extraordinary things, which probably will never materially affect them. A pupil would spend a whole day, or a whole week, in endeavouring to get a sight of the operation of removing the scrotum of a Hoo Loo, an operation which he never will have to perform, and which, if he did perform, would be of little service to his patient or himself—but he will not spend an hour in learning how to tie down a bottle in such a manner, that spirits of wine will not evaporate. This, however, is an age of utilitarianism, and our excellent friend Mr. Crosse, who has done much to improve the science of surgery, is employing himself in the useful and sensible task of informing his provincial brethren of the best mode of preserving preparations in spirit.

We will take the liberty of adding a few observations of our own, and as they are addressed to those who, we will suppose, know nothing of the matter, that is, to most students and many practitioners, we shall make no apology for their homely nature.

If the object is to preserve those colours in a preparation which washing would remove, it should immediately be placed in spirits of wine, and, after maceration for several days, it may be dissected, and suspended in the form which it is intended that it should permanently retain.

But if it is not necessary, as in the majority of cases it is not, to preserve those tints which depend on the presence of blood, or of matters that water will take up, then the morbid parts should be placed in water, and that should be changed twice or three times daily, until the blood is washed out. During this time, the preparation should be several times dissected *under water*, in order to remove the superfluous parts, and more particularly to get rid of the cellular and adipose tissue. When the blood is removed by maceration in water, the preparation should be transferred to a pan or stoppered bottle, containing spirits of wine. After maceration in this for a few days, it should be again carefully dissected *under spirit*, when the flocculent cellular membrane is removed, and the preparation properly *trimmed*. This is the part of the process which requires most care and judgment—if this is well done, the preparation will turn out a neat one, if it is ill-done, it will

never look well. Several dissections are usually necessary, and the same spirit, being filtered through coarse white blotting-paper, will do again and again, both for the maceration and dissection.

The preparation is now reduced to its proper size and form. It is here that the taste, indeed the science of the dissector becomes apparent. It is then transferred to the bottle, and suspended in alcohol. We usually employ it of the strength of 56° above proof. This is expensive, but it is beautifully clear, and preparations both look and do better in it than in spirit of a weaker quality.

For small preparations, stoppered bottles are the best for this stage. For the preparation is not, in fact, *finally* put up. It ought to remain for some months in spirit. Stoppered bottles are, we say, best adapted for preparations of small size, for, in the first place, a good bottle permits very little evaporation, in the second, there is little trouble, and, in the third, there is no waste of bladder, lead, or paint. But stoppered bottles cannot be procured of sufficient size in the mouth to contain large preparations, and they must be placed in bottles secured in the manner we shall presently point out.

Whichever kind of bottle be employed, the preparation should be so adjusted, as not to interfere with the shape it is desired that it should ultimately assume. For it is so hardened by long immersion in the spirit, that if once it becomes corrugated, or assumes an improper form, it is in many instances impossible, and in all difficult, to restore the proper one.

In many preparations of hollow organs, it is desirable that the interior should be exposed, yet that the walls should not collapse. There are two modes of distending parts. If a canal, like the rectum, forms the preparation, it may be distended with baked horsehair or tow. But if it be wished to dilate a cavity with contracted apertures, as the heart, it should be injected with spirits of wine. The injection should be made under spirit, and very frequently repeated, in order that what escapes may be replaced, and that the organ should be kept as permanently distended as possible. In either case, whether the organ be distended with horsehair or with spirit injections, being immersed in spirit, it hardens, and, after a time, the parietes have become so rigid, that the cavity may be laid open without their collapsing. Some of the most beautiful preparations of sections of the bladder, heart, intestines, are thus made.

We have brought the preparation to a fit state for being permanently put up. We have not mentioned a variety of little circumstances, because they would detain both our readers and ourselves, and their own experience will instruct them better than many pages of minute and tiresome detail. We can now turn to Mr. Crosse, and follow him in his observations on the suspension of the preparation, mode of securing the bottle, and so on. We cannot analyse his recommendations, but must select those portions which are most distinct and forcible, and connect them by what slight critical cement may be required.

"I consider it injudicious," he says, "to attempt to close moist preparations in winter; the warmth of the succeeding summer will irresistibly expand the contained fluid, loosen and disturb the cover, and give rise to evaporation. The best, and at the same time most convenient, season for attending to this business, is during the warm and long days of summer; and where there is an option,

the curator should make this choice. All the processes of closing a moist preparation are best conducted in warm weather; indeed, they can scarcely be accomplished quickly enough in the winter season. The jar being closed in warm weather, when the contained fluid has its greatest dimensions, is afterwards submitted to lower degrees of temperature only, which contract the fluid and do not, therefore, tend to displace the covering of the jar.

If we are too studious in avoiding expense, we cannot close moist preparations perfectly and successfully. The jars should be invariably made of the clearest flint glass, and should be from 1-10th to 1-8th, or even 1-6th of an inch thick. If the edge of a jar be not made sufficiently thick, it will break under the requisite force employed in closing the jar and adapting the lead to it. Oval jars seem to be required for some preparations, but should in general be rejected, on account of their being liable to crack in cold weather at the part where the curvature is greatest. Round glasses should be selected, shaped like *fig.* 1, *plate* 3; and it will be found very advantageous to have the jar high in proportion to its diameter, because, although some spirit should in the course of years evaporate, the morbid specimen may still remain covered with spirit, and the necessity of replenishing and re-covering the jar be obviated. There is also another advantage in a high jar, that it allows the upper part of the specimen to be distinctly seen. The lip of the jar needs to be very accurately formed; if the glass-blower have not performed his duty, leaving the lip of the jar irregular, or chipped, or not shaped exactly as I shall describe, no anatomist, in my opinion, can ever successfully close the jar. Suppose *fig.* 2, *plate* 3, to represent the perpendicular section of a jar, the top or rim should be exactly flat in the direction of the line *(a. b.)*, the lip *(b. c.)* should be rounded, and the rest of the surface of the glass should take the direction of the line *(c. d. e.)* If the rim be not well shaped, but irregular, and brought too near to *(e.)*, it will not be possible to apply the lead accurately, as will be subsequently described. Continually we find in use, jars with the rim bent irregularly, so that its inferior surface *(c. d.)* is found inaccessible when you are about to adjust the lead; and with such defects the jar can never be effectually closed." 291.

The preceding observations can be understood well enough without the diagrams, which we do not, therefore, introduce. We would insist very strongly on attention being paid to Mr. Crosse's hints with respect to the construction of the jars. We would add, that, for the beauty of the preparation, the glass should be extremely clear. Some glass has a sort of pearly tint; that spoils the appearance of the preparation. The majority of jars are made with an uneven bottom. We do not mean that the surface is so uneven as to give unsteadiness to the bottle, but that there is a sort of button left by the blowing, which refracts the light very unequally. This is obviated in bottles of the last and best construction, where the bottom of the jar is finished off very accurately, and no such refraction of the light occurs.

Mr. Crosse alludes to the preservation of specimens in spirits of turpentine, pyroligneous acid, solutions of certain salts, &c. All these plans are pretty generally discarded, and spirits of wine are now solely used in the best museums of the metropolis. We have stated that we employ exclusively alcohol, 56° above proof. Mr. Crosse remarks:—

"In general, the fluid employed for moist preparations, is composed of equal parts of spirits of wine and distilled water; and as these fluids do not at once mix completely together, the plan I advise, and have long practised, is, to put them together, and keep them for weeks or even months in narrow-mouthed glass stopper bottles, which are very high in proportion to their width; thus

you get a perfectly clear and uniform fluid, which can be poured off as you require it, leaving the sediment at the bottom. If the water and spirits of wine be mixed and immediately used, the mixture has globules of air in it, as well as *impurities;* but *these* by long standing, in tall slender bottles such as I describe, will settle to the bottom, whilst the globules of air will soon arise to the top, leaving the proof spirit in the best state for being employed by the anatomist." 292.

The disadvantage of employing this comparatively weak spirit is, that sometimes the preparation becomes putrid in the centre. It never looks so well as the strong alkohol, but then the latter is exceedingly expensive. The retail price of alkohol, of the strength we employ, is twenty-two shillings and six-pence the gallon; and a gallon does not go far.

"Having selected," continues Mr. Crosse, "a jar suited to the size and shape of the specimen, you fill it nearly full with proof spirit, in which you immerse the specimen, transferring it direct from the glass-stopper jar, if no more dissecting be required.

The method of suspending a preparation must be left greatly to the ingenuity of the operator. Where a thread is employed, it should be very fine as well as strong; what is called dentist's silk answers well, a smaller or a larger filament being employed, according to the weight to be supported. For very large specimens, Mr. Macartney, when I was with him in Dublin, employed a cat-gut thread, such as is used by anglers to fasten the hook to the line; it is only specimens of great magnitude that require this. The thread being attached to the preparation, its two ends are carried in opposite directions over the rim of the jar; a fine thread is put circularly upon the neck of the jar; then the former two threads, held down by the circular one, are brought back over the rim of the jar, and meeting in the centre of its mouth, tied there." 298.

We would remark that the jar, before being filled with spirit, should always be rinsed out with spirit. It is usually rinsed out with water, but this is apt to render the liquid afterwards turbid. We would observe also that the preparation itself should be well washed with strong alkolol before it is transferred to the jar. This washing removes a number of flocculent debris, and it wastes no spirit, because the spirit that washed it is fit for the jar, when re-filtered through good blotting-paper. All these minute precautions make much difference in the appearance of the preparation, and we therefore mention them.

"In many instances a suspending thread may be dispensed with; where the specimen has been properly hardened and prepared, and the jar just fits it, you need only press it down to the situation you wish, and it will be retained there, compressed by the sides of the jar. Some specimens, particularly small ones, can be fixed upon talc, which rests at the bottom of the jar, and thus a suspending thread be avoided. Glass globes filled with air, as represented in *fig.* 3, *plate* 3, have been used, a thread attached to the specimen being hung upon the hook *(a)*: this method of suspending the preparation, by a floating glass globe, I have not found convenient; the preparation is unsteady, and sinks lower in the jar as the spirit evaporates." 293.

We would say, however, that in almost all cases it is better to employ a thread. Generally a preparation that rests upon the very bottom of the jar has an awkward look, and it seldom lies exactly even. In suspension the preservation of an exact level is indispensable for appearance' sake.

"The specimen should invariably be placed near to the bottom of the jar;

often it may touch the bottom of the jar; and the upper third of the jar, or a considerable portion of it, should remain occupied only by the clear spirit; placing the specimen in this relative position to the top and bottom of the jar, not only brings the advantage already stated of allowing for the evaporation of spirit during many years, before the specimen will be exposed, and a necessity for renewal of the spirit arise, but admits light to come to the upper part of the specimen, enabling you to get a clear view of it, which is precluded when a preparation fills the jar near to the top, because the covering of the mouth of the jar is opaque." 293.

Mr. Crosse's objections to suspending the preparation high are very just. But, as we said before, we do not want to see it actually touch the bottom of the jar; at least, not in ordinary cases. We now come to a very important part of the process.

"The preparation being suspended, or supported, or somehow fixed in the right relative position in the jar, you must proceed to fill the jar most accurately to the brim with proof spirit, which should be poured out of a small tall and narrow vial (*fig.* 5, *plate* 2); for this filling to the brim cannot be done with accuracy, if you pour the proof spirit out of a large bottle, nor unless you make the brim of the jar exactly horizontal.

You next proceed to close the top of the jar, and bladder is the first covering you put over it. A common bullock's bladder, inflated and dried as we commonly purchase it, is the best material; and you must immerse it in water, and keep it macerating in this fluid, until it is pulpy, or until one coat passes over the other readily when a portion of the bladder is rubbed between the finger and thumb. A week or ten days will be required for macerating a bladder well, even in the warmest weather; and in the cold season two or three weeks. In an emergency you may expedite the process by using tepid water; it can scarcely be macerated too much, though nearly putrefying, provided it continues sufficiently firm not to tear under the force requisite in applying it. The bladder thus macerated should be well washed with water to render it quite clean, and wiped with a towel to remove moisture from its surfaces. Having also wiped the rim of the jar dry, you proceed to apply the bladder, by placing the inner or mucous surface next the spirit, laying it over the top of the jar and in contact with the spirit, so that no air is left; you bring the edge of the bladder round the rim of the jar (*b. c. d. fig.* 2, *plate* 3), and maintain it in this position by several turns of twine round the neck of the jar. Cut off the bladder close to the twine all round the neck of the jar, and press the edge of the bladder firmly upon the neck of the jar, by wiping it from above downwards with a towel, that on drying it may adhere to the jar firmly, and by a thin edge.

Experience has suggested to me a plan of drying the bladder, which is of great utility: that part only should be dried which is in contact with the rim and neck of the jar, and not the central portion which is over the mouth of the jar and in contact with the spirit. If no precaution be taken, whilst you are allowin the first bladder to dry, much spirit will evaporate through the portion of the bladder covering the mouth of the jar. I therefore cover all the bladder which is over the mouth of the jar and in contact with the spirit with a circular flat piece of lead, of such size as answers to the mouth of the jar. Graduated sizes of these circular pieces of lead should be kept (as *figs.* 4, 5, 6, *plate* 3), which may be an eighth of an inch or more in thickness; the weight of the lead brings some advantage; this lead should be allowed to remain on until the bladder is perfectly dried upon, and firmly adherent to, the rim of the jar. The bladder being perfectly dry upon the rim and neck of the jar, you remove the circular lead from the top, and also the twine placed round the neck of the jar; then pare off any irregularities of the edge of the adherent bladder at the neck of the jar, by cutting obliquely from above downwards." 295.

We are in the habit, as the curators of most museums are, of introducing talc between the bladder and the spirit. There are several advantages attendant on the employment of talc. In the first place, it affords a great convenience for the suspension of the preparation. Instead of carrying the suspending string over the rim of the jar, and securing it round the neck by the circular thread, it is carried more perpendicularly through a small hole drilled in the talc itself. In this way it hangs better in the bottle, and being fastened to the talc, it can be removed and returned into the bottle again, or into another with facility. In the second place, the talc prevents the bladder from becoming concave, a very unsightly occurrence when it takes place. And, in the third place, the talc forms the best preservative of all against evaporation from the superficies. The talc, itself, should be cut into a circular piece, not extending quite so far as the circumference of the bottle's rim. We are sure that if Mr. Crosse tries the talc fairly, he will admit its utility and excellence. The talc should be laid on the surface of the spirit, and over it the first bladder should be applied in the manner recommended by Mr. Crosse.

The drying of the first bladder in warm weather will occupy at least twenty-four hours, and sometimes as much as three or four days. To expedite it the jar should be placed where there is a free current of air.

The next step is to apply a thin sheet of lead over the bladder. The lead is very instrumental in obviating evaporation, and its proper adjustment is therefore a matter of much delicacy and importance. The sheet lead should be thinner in proportion as the jar is smaller. For small jars, an inch or two in diameter, Mr. Crosse is inclined to think that the lead should be the 1-100th of an inch in thickness—for the largest jar, the 1-40th of an inch, or about the thickness of a common wafer. The following is Mr. Crosse's description of the method of applying it.

"You cut out a piece of the prepared lead, as much larger than the rim of the jar as is required to lap over to the extent I shall describe, and having rendered this lead perfectly smooth and regular, you lay it upon the top of the jar, and with the fingers, aided by instruments of wood or ivory, such as are represented in *plate* 4, *figs.* 1, 2, 3, you put the lead in contact with the first bladder, and by forcible pressure with one or other of these instruments, you mould the lead exactly to the shape of the rim and neck of the jar, after the manner that a shoe-maker uses similar instruments in pressing down and smoothing the edge of the sole of a shoe. The object is to have the lead correspond to as much of the rim of the jar as is possible (the bladder, of course, always intervening), and with this view, you make the portion of the lead, answering to the mouth of the jar, a little concave, taking the same shape as the bladder has assumed in drying; you adjust the lead first to the inner edge of the rim (at a *fig.* 2 of *plate* 3), then to all the upper flat surface of the rim (*a. b.*), then round its outer edge (*b. c.*), to the under surface of the rim (*c. d.*), and downwards upon the neck of the jar to (*e.*). The leading of a jar, after this fashion, is necessarily a slow process; but as every thing mainly depends upon it, no trouble should be spared. When you have gotten the lead tolerably applied, being every where in contact with the first bladder, you must, by pressure and hard rubbing with one of the wooden or ivory instruments (*plate* 4, *figs.* 1, 2, 3), put it firmer down upon the bladder and rim of the jar, using about as much force as the rim of the glass will bear, and adopting the same motion of the instrument as a gilder in burnishing a frame. The lead being everywhere smoothly and firmly applied, you finish by paring off the lead all around the neck of the jar, cutting obliquely from above downwards, and leaving the lead long enough to pass a little lower upon the neck of the jar than the first bladder." 299.

The representations of the instruments employed for moulding the lead are of no great consequence, as they are merely flat or oval pieces of ivory or hard wood, set in a convenient handle.

Over the lead comes the second bladder, which should be well macerated, &c. as before. In applying this bladder to the lead, proceeds Mr. Crosse, you may put the inner or mucous coat outwards (the reverse of the first bladder), and the bladder should everywhere touch the lead, without any intervening air, being secured by several turns of twine round the neck of the jar. After the twine is applied, and tied firm, you cut off the bladder even and regular just below it, taking care to leave enough of the bladder to cover the edge of the lead, and descend just below it. In order to make the edge of the bladder stick well to the neck of the jar, you must press it down firmly with a rough towel, or with the handle of a knife, if the bladder have been well macerated, it will stick very close in drying, but a half-macerated bladder will turn up at the edge and not adhere. Having finished the second covering of bladder, you leave it to dry for twenty-four or forty-eight hours, and when dry, you make its edge perfectly regular upon the neck of the jar, paring off all irregularities with a sharp knife, in the same direction as in paring the lead or first bladder.

When the second bladder is perfectly dry, it should be painted over with common black paint, which is to extend beyond it on the neck of the jar. When this coat of paint is dry, it should receive a wash of coach-maker's black varnish. Once in a few years a fresh coat of black varnish will be required, but, with this exception, Mr. Crosse assures us that the preparation will require little or nothing to be done to it for thirty, or even fifty years. We must say that we have not been so fortunate in the preparations we have put up, but no doubt we were not so exact in some parts of the process as we should have been.

Mr. Crosse very properly remarks, that a knowledge of the mode of putting up preparations is almost as necessary to the attainment of much pathological knowledge, as the dissection of the body itself. It cannot then be beneath the attention of every one who is anxious to become acquainted with morbid anatomy. Such information is absolutely indispensable to all who aspire to practise their profession with credit. The same view of the practical utility of preparation-making, which influenced Mr. Crosse in publishing his observations, has influenced us in giving them extended currency, and in adding a few remarks of our own. The station which Mr. Crosse himself occupies, is the best proof of the eminence and the respect, to which a zealous cultivation of both the scientific and practical department of the profession leads.

Before we quit this subject, we would offer another observation. It is often advantageous to preserve a dissection in spirit for use. We wish to take it out occasionally, and to examine it. We are not solicitous about it as a preparation, but we merely desire to preserve the dissection in a serviceable condition, at as small an expense as possible. This may be done with the *vapour* of alkohol. Let the preparation be placed in a jar, and alkohol poured on it to the level of half an inch from the *bottom* of the vessel. This is to be tied over with bladder and leaded, and the vapour of the spirit will preserve the parts in a perfect state. When it has evaporated, it must, of course, be renewed. This is a very economical method of preserving fine dissections for lecture, and it is much employed in the great schools of London.

III. A Case of Deformity of the Pelvis, in which the Cæsarean Operation was performed with Success. By *S. B. Knowles*, Esq. Lecturer on Botany at the Birmingham School of Medicine.

This is a very interesting case, and does, we think, much credit to all the parties concerned.

Case. Sarah Bate, æt. 36, was delivered of her first child in May, 1824—of her second in December, 1826. Both are now living, but, without any appreciable disease of the spine, have lost the use of their lower extremities. In May, 1828, she had a girl still-born, and in Nov. 1829, a boy born prematurely. During her pregnancy with this child, she began to perceive a loss of power in her lower extremities, with considerable uneasiness, though not amounting to severe pain, in her hips and loins. Soon after her delivery, which was in the seventh month of utero-gestation, she again became pregnant, when the loss of power increased to such a degree, that she became incapable of moving from her seat without the aid of crutches. After this period she miscarried four times, and at rather short intervals.

In her last pregnancy, the ninth, and that in which the circumstances we are about to mention occurred, she went her full time. Mr. Knowles was summoned to her at 7, a.m. of the 15th May, 1835, labour having commenced about 4, p.m. of the 14th. The pains were neither strong nor frequent. The legs and thighs were extremely anasarcous. Mr. K. left her, but was again summoned at 3, p.m. when he found her in strong labour, the pains being vigorous and frequent.

Upon examination, he observes, a most extraordinary state of deformity presented itself; the sacrum, with the lower lumbar vertebræ projecting, and at the same time descending so far into the cavity of the pelvis, as to occupy a large portion of its space. This projecting body was also rounded in shape in a most remarkable manner; so that without a somewhat careful examination, it might easily have been mistaken for the child's head. Upon passing the finger, however, between it and the hollow of the sacrum, a perfect continuity of surface might be traced from one to the other, thus shewing at once the actual nature of the case. The capacity of the pelvis was still further diminished by the ossa pubis, which were bent inwards to such a degree, as to approach very nearly to the distorted vertebræ. Of course it was impossible to ascertain the state of the presentation.

At 4, p.m. a violent pain ruptured the membranes, and an unusually large quantity of the liquor amnii escaped; but it was still impossible to feel the child.

"Under these circumstances, I requested the assistance of my friend Mr. Ingleby, the able and intelligent Lecturer on Midwifery at the Birmingham School of Medicine. After the most careful examination, we ascertained that the space left by the deformity did not exceed two inches in length, by less than one in breadth; a space that could by no means be considered available under any point of view. To attempt to open the head, where that head could not be felt, would have been neither prudent nor practicable. Admitting, however, for a moment, the bare possibility of opening the head under such circumstances, still the subsequent extraction of the child must have been totally impracticable. It was evident, therefore, that the only course which afforded a prospect of saving either the mother or the child, was the performance of the Cæsarean operation." 378.

The case was explained to the patient, who immediately gave her assent to the operation. Mr. Wood, senior surgeon to the Birmingham Hospital, Mr. Wickenden, and Mr. Heath, were joined in consultation, and, with their assistance, the operation was performed by Mr. Knowles at 11, p.m. thirty hours after the commencement of labour.

"The external incision, which was made through the linea alba, passed imme-

diately on the left of the umbilicus, and was about ten inches in length. A portion of intestine immediately protruded, which was carefully kept back by an assistant. The incision into the uterus was commenced near its fundus, by passing the scalpel carefully through its parietes (which were about an inch in thickness), so as to allow the admission of two fingers. Using my fingers as a director, I rapidly enlarged the opening, by which the placenta was exposed, accompanied by a brisk hemorrhage. Passing my hand by the side of the placenta, I ruptured the membranes, and without difficulty took out the child, which was living. The placenta was then detached, some coagula were removed, the uterus contracted, and the hæmorrhage (which probably did not exceed sixteen ounces) was immediately arrested. The external integuments were brought together by stitches, which were inserted at somewhat more than an inch apart; adhesive straps were applied in the intervals, and the whole was secured by a compress and bandage." 380.

The patient bore the operation without a murmur. In an hour after it she took an opiate, and at 3, A. M. of the 16th she fell asleep. In the morning she had some vaginal discharge, and a good deal of fluid escaped from the lower part of the wound. Having voided no urine, a catheter was introduced, after which she passed considerable quantities. Next morning she complained much of flatulence, and vomited; pulse 110, and full. An injection of mutton-broth was administered, and after it one of turpentine, but little save flatus was brought away.

" 18th, eleven, a. m. Has had considerable pain, with vomiting, during the night, but has slept at intervals: the tympanitis has increased. She was now ordered to take, at intervals of two or three hours, equal portions of soda water and milk, with, occasionally, a little chicken broth. The wound was dressed this morning for the first time; it looks healthy, but no union has taken place. There is in fact, so much distention, that it is scarcely possible to keep the lips of the wound in apposition; the stitches are kept upon the stretch, and a portion of intestine is visible through one of the intervals. Four, p. m.—She is become thirsty, and has distressing hiccough; there is also a general tenderness of the abdomen, with constant, though not violent pain. The mixture has acted gently on the bowels. Ordered a draught, containing tinct. opii, ℥xxv. to be taken immediately. Nine, p. m.—Thinks herself relieved by the draught; the hiccough continues but is less violent. Ordered a draught with tr. opii ℥l., to be taken at bed-time." 381.

She passed a better night, and next day all the symptoms were rather mitigated. The wound looked well, with the exception of two or three small sloughs, in connexion with the stitches. There was still some lochial discharge from the vagina, and a small secretion of milk. To produce contraction of the uterus, the child was applied to the breast occasionally. Pulse 145, tongue clean, though somewhat dry. She passed much flatus per anum, which relieved the tympanitis.

We see no necessity for pursuing the subsequent details. The wound did not unite by the first intention, but gave issue to a serious discharge, succeeded on the tenth day after the operation by one of a purulent character. Granulations then formed, and in about a month the wound was filled up with them. The treatment consisted in opiates—occasional injections—soda water and milk, gruel, and chicken broth, succeeded by the stronger broths, porter, and light tonics. The sensible view which Mr. Knowles took of the case was this—that the woman was in a very debilitated condition, and that her best chance, on the whole, would arise from the total absence of depletion. He thinks too, and in such a case the supposition is probably correct, that the non-adhesion of the wound was rather favourable than otherwise, by permitting the free escape of fluids.

(To be continued in our next Number.)

Periscope;

OR,

CIRCUMSPECTIVE REVIEW.

" Ore trahit quodcunque potest, atque addit acervo."

I.

Spirit of the English Periodicals, and Notices of English Medical Literature.

MODUS OPERANDI OF MEDICINES. By JAMES JOHNSON, M.D.

(From a Discussion in the Westminster Medical Society.)

The experiments and observations of Dr. Addison have been now seven years before the public, and have been approved and appropriated by some of our best Toxicologists. I fully agree with Dr. A. that all violent *poisons* act through the medium of the nervous system *alone*, many of them destroying life before there is a possibility of their entering the circulation. This has been long acknowledged. I have seen the ear of a rabbit exposed to the bite of a Cobra de Capella, with a pair of scissars kept across the ear, ready to cut it off the moment the bite was inflicted; yet the animal died quickly in convulsions. But this rapid modus operandi of *poisons*, may not apply, perhaps, to the action of medicines which operate slowly, and which enter into the circulation.

It is now twenty years, since a distinguished physician, still alive, taught and published the identical doctrine of this sympathetic, or nervous agency of medicines, founded on experiments made on animals twenty years previously to that period. The following extracts are made from the second volume of Dr. Chapman's Treatise on Therapeutics.

" The theory I shall propose, of the operation of medicines, alleges, that they all act by exciting a local impression, which is extended through the medium of sympathy." *Vol.* 1, *page* 60.

Again.—" All changes in the condition of the fluids are wrought by impressions made through the medium of the solids. Not the slightest proof exists, of their undergoing any mutations from the introduction of foreign matters—much less that such is the cause of disease, or the mode in which medicines operate." *Page* 61.

3rdly.—" The process of assimilation, whether performed by the chylopoietic viscera, or by any part of the absorbent apparatus, completely decomposes all substances, however discrepant in their properties, and reduces them to a homogeneous fluid fitted for the purpose of nutrition." *Page* 63.

Lastly.—" Conformably to the theory I have adopted, whenever a medicinal substance is applied to a susceptible portion of the body, externally or internally, an action is excited, which is extended more or less, according to the diffusibility of the properties of the substance, or the degree of sympathetic connexion, which the part may maintain with the body generally. Thus a set of actions is raised, every one of which is precisely similar, provided they are confined to the same system. If the chain runs into other systems, it loses its homogeneous character, and the actions are modified by the peculiar organization of the parts in which they take place." *Page* 70.

The experiments, from which these conclusions are drawn, were conducted by Drs. Chapman and Lee, some 40

years ago, on dogs and cats, in the Pennsylvania Hospital.

These deductions appear to rest on two assumptions—neither of which is, I suspect, tenable. *First*, that no medicinal substance can be detected in the blood—and *secondly*, that the chyle is the same, or nearly so, whatever may be the nature of the food or physic taken into the stomach.

Dr. Christison, who is a disciple of Dr. Addison and Mr. Morgan, and warmly espouses their views, acknowledges that "poisons, after being swallowed, have been detected in the blood, the secretions, and the excretions." Grognier found muriate of ammonia in the serum of horses poisoned by it. TIEDEMANN discovered verdigris and superacetate of lead in the blood of the veins, in similar circumstances. LEBKUCHNER found camphor in the blood of the vena cava. MEYER detected hydrocyanate of potass, not only in the blood, but in the serous secretions of animals poisoned with that substance. JOURDAN and others discovered mercury in the urine of persons who were taking it medicinally. CANTU detected iodine in the blood, sweat, urine, saliva, and milk of patients who were using it in medicinal doses. Kumer found hydrocyanic acid in the blood of animals poisoned by it. "The spirituous odour," says Dr. Christison, "of men and animals under the influence of alcohol, is a proof of the presence of that poison throughout the blood."

These are the facts adduced and acknowledged by Dr. Christison, who, nevertheless, supports the doctrine that poisons and remedies act, *solely* through the medium of the nerves. But supposing that neither poisons nor medicines could be detected in the blood, after being taken into the stomach, would that prove that neither they nor their compounds circulated with the vital fluid? Let us hear an experiment performed by Drs. Christison and Coindet. I use Dr. C.'s words. "We injected into the femoral vein of a dog eight grains and a half of oxalic acid, which caused death in half a minute. Here it was impossible that the poison could have passed off by any of the excretions; yet we could not detect even that large proportion in the blood of the iliac vein and vena cava collected immediately after death." *Toxicology*, *p.* 14.

We cannot, I think, draw any line of demarcation between food and physic, when taken into the circulation, as they are proved to do, whether changed or unchanged. Nor do I think that we have any experiments to prove that they do not modify the state of the circulating fluids, and influence the secerning vessels and their products, as well as the nerves of the organs through which they permeate.

We must remember that the blood contains the pabulum of all the secretions, and as the minute secreting as well as absorbent vessels are endowed with the power of selection, is it not reasonable to suppose that they will be influenced by medicinal substances, or their elements, when presented to their mouths? We rub mercurial ointment on the thighs till ptyalism is produced, and the whole of the glandular system, throughout the body, is brought into a state of great activity, with considerable changes in the various secretions and excretions. Are we to infer that all this is produced by sympathy between the nerves of the thigh (where the first impression is made), and the nerves of all the glands in the body?

Iodine is rubbed on the surface, or taken slowly into the stomach for a considerable time—and the MAMMÆ waste. Is this from sympathy of the cutaneous or gastric nerves with those of the breasts?

Dr. A. T. Thomson detected iodine in the urine, saliva, and perspiration of patients taking that medicine in medicinal doses, and shewed some beautiful experiments in the Westminster Medical Society. The medicine is easily detected by starch and nitro-muriatic gas or acid, applied to any fluid containing even the minutest quantity of iodine. The fluid turns blue.

A very talented young chemist (Mr. BIRD), stated that he had detected iodine in the blood by means of the same tests.

Drs. Addison and Chapman seem to

think it unphilosophical to consider the modus operandi of medicines a compound operation, when that modus may be accounted for by a single process. Why should the blood and the blood-vessels, say they, have any thing to do in the cure of syphilis by mercury, when the whole process can be explained by the nerves? Can mercurial ointment rubbed on the legs or thighs, cure a chancre on the penis, simply by sympathy between the nerves of the two parts? It is curious that this sympathy very seldom produces any curative effect till the gums become sore, and the breath exhibits a strong mercurial fetor.

The poison of syphilis *ought* to be a stumbling-block to the simple and *solely* nervous agency of poisons in all cases. Does the application of the syphilitic virus to the glans penis produce, not only the chancre, but the subsequent affections of the bones and other parts, *solely* by sympathy between the nerves of the glans penis and all these different structures? Is it not more probable that the poison passes into the system by means of absorption, tainting the whole mass of blood, and diseasing various tissues for which the virus had an affinity or predilection?

The liver is torpid and the stools are like clay. Mercury is taken for five or six days, till the mouth is touched, when the bile flows freely, and the stools become yellow. Yet all this is supposed to be from sympathy between the gastric and hepatic nerves, *alone*.

Drs. Addison and Chapman will, no doubt, explain these phenomena by supposing that, when mercury is taken, it is the nerves of the liver or other glands that set the secretions in activity. Allowing this to be the case, as I do, it only gives the nerves the *initiatory* in the process; the blood and the secerning vessels being essentially involved and employed in that same process. I do not deny the agency of the nerves in every curative as well as destructive operation; but I deny their exclusive agency. The nerves cannot secrete, without the vessels, nor can the vessels without the nerves. It is their joint agency for which I contend—it is their insulated or independent actions, in the MODUS OPERANDI of medicines, that I repudiate.

Where do we see any great process in the animal economy, whether conservative or destructive, carried out by the nervous system, exclusive of the vascular—or by the vascular independent of the nervous? Is digestion, assimilation, sanguification, secretion, or absorption, performed by one of these systems alone, or in any case? And is the MODUS OPERANDI of medicines, (which are only auxiliaries or correctives of some of these processes) to be made an exception, and an anomaly in the operations of the living machine?

Is the chemistry of the animal fluids, to be placed entirely to the account of the nervous system? We have turbid urine, with deposition of uric acid. A few drachms of soda change the state of renal secretion, and render it clear. Is this from sympathy, and from sympathy *alone*, of the nerves of the stomach with those of the kidney?

A man has epilepsy, and he takes nitrate of silver for several months. The disease may or may not be cured; but the skin becomes permanently blue. Is the MODUS OPERANDI of argentum nitratum to be solely attributed to sympathy between the nerves of the stomach and the skin?

I am ready to grant, what, indeed, no physiologist or pathologist will deny, that the primary impressions of all kinds of food, and all kinds of physic, are made on the nervous system—and that violent poisons will destroy life through this system alone, as a blow on the stomach will kill instantaneously, before the vascular system can be called into play. But this I maintain, that, when medicines are slowly introduced into the body, they excite a series of actions in the nervous and vascular apparatus, CONJOINTLY and not SEPARATELY,—and that it is through this conjoint agency, (whichever may take precedency) that all remedial or deleterious effects are produced.

There is, after all, but little real difference between Dr. Addison and Dr. Johnson. The chief difference is this: The *former* thinks the entrance of *medicines*, as well as poisons, into the cir-

culation, unnecessary: — The *latter* thinks that medicines, and poisons in medicinal doses, do enter the circulation before their full remedial agency can be effected—always excepting, of course, those medicines which act, and are intended to act, *locally*, as purgatives, &c.

PROPOSED MODUS OPERANDI OF MEDICINES.

I submit that, in cases where medicines are exhibited *in medicinal* doses, viz: for the remedy of disease, and not for the destruction of life, the MODUS AGENDI consists of three distinct and consecutive processes, as far as the evidence of our senses is concerned.

First. The physiological action of the medicine itself on the nervous system of the part or parts to which it is applied.

Secondly. The physiological action or re-action of the nerves on the vascular, glandular, or fibrous tissues of the same part or parts.

Thirdly. The physiological action induced in the vascular, glandular, and fibrous part or parts, by the two preceding processes—in other words, the remedial *effects* or *products* of the medicine employed.

Now, of the *Modus Operandi* of the medicine on the nerves—and of the nerves on the vessels, glands, and muscles, we are entirely ignorant—and we only take them for granted; and of the third process—the physiological action of vessels, glands, &c. we only become cognizant, by the effects or products of this action. To illustrate this reasoning let us take an example.

Calomel is introduced, in successive doses, into the stomach. We know not its physiological mode of action on the nerves of that organ, or of any other organ to which it may be carried. Neither do we know the modus operandi of the ganglionic nerves on the vessels, glands, or other tissues of the parts which they supply. But the third process takes place—the physiological action of these last structures, and then we have the visible, tangible, demonstrable results—ptyalism—increased action of all the glands—alteration in the various secretions and excretions.

In these three consecutive processes, then, this *tria juncta in uno*—we have the modus operandi of medicines. The medicinal agency is the first—the nervous agency is the second—the vascular agency is the third.—Any one of the agents being absent (I mean in therapeutics) the others cannot act. In the exhibition of medicines, all the three processes must be called into play—and the result is, the MODUS OPERANDI, in a practical point of view.*

The only question that remains, and in this I differ from the exclusive sympathetic doctrine, is this:—Is the nervous system of the various parts remote from the seat of primary impression—(the stomach, for instance, when mercury is exhibited)—excited into action by purely nervous sympathy with that primary part, or by the presence of the mercury, however decomposed or modified, carried to these parts by the circulation?—This is the problem to be solved—and my own opinion is, that the probability is in favour of the latter

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* It is quite useless, in the present state of our knowledge, to attempt an explanation of the *mode or manner*, in which nature operates, whether in respect to poisons or remedies. The *effects* of these agents are all that we can ascertain. The effects, then, of poisons, in large and in small doses, are different. Small doses of arsenic will cure diseases, and produce a train of phenomena totally different from those produced by large or poisonous doses. How, then, can we say that the modus operandi must be the same in both cases? Thirty grains of calomel will purge—and do nothing else, in a great majority of cases. The same given in grain doses, at intervals of eight hours, will salivate and affect the whole system. Is the *modus operandi* the same in both instances? Is not the mercury taken into the system, in the *latter* case, and does it not act, through the medium of the blood, on the whole machine? In the *former* case, does it not act on the intestinal canal without absorption?

supposition—namely, that the mercury (and I only take this as a familiar example) permeates throughout the whole system, and acts on each individual organ and part (through the nerves and vessels), in the same way as it did on the part to which it was first applied.

Lastly.—If the physiological action of medicines were propagated from the stomach to other organs and parts, by nervous sympathy *alone*, that action ought to be first and most strongly manifested in those organs and parts with which the stomach most readily sympathizes. But this is so far from being the case, that we can never predicate the direction which any particular medicine may take, till it is determined by experience. Who could have prognosticated that antimony would vomit, colocynth purge, mercury salivate, iodine emaciate, digitalis depress, and bark invigorate, by any investigation of the physical or chemical characters of these and a hundred other officinal substances? I contend, then, that the laws by which medicinal agents are directed to particular organs and parts of the living body, are, as yet, unknown—and that the MODUS OPERANDI, by nervous sympathy *alone*, does not satisfactorily account for the phenomena which we observe in the practice of physic.

P. S. We regret that we are unable to give Dr. Addison's able speech on this subject. It was not written, and it was delivered with the usual eloquence and rapidity of the talented Chairman of the Westminster Medical Society.—EDS.

QUACKERY; ITS DANGER, IRRATIONALITY, &c.

This little brochure, of sixteen or eighteen pages, is remarkably well written; but, as addressed to the community at large, will have about as much effect against quackery, as the best sermons have against sin—viz: no effect at all! Our legislators have always been chary of abridging John Bull's liberties, even where these extended to self-destruction. They tax his purse freely—but allow him to be poisoned by every unprincipled Charlatan that comes in his way. There can be no cure for the evil, except in the restrictive laws adopted by Continental Governments; and it is very doubtful whether our collective wisdom will ever consent to such a serious inroad on our freedom, as the suppression of quackery would effect. There is no harm, however, in the getting-up of petitions to Parliament. The following form, appended to the pamphlet, is, we think, as good a one as can be devised.

"That the object of medical science is the establishment of fixed principles, to regulate the application of remedies in the cure and prevention of disease; and it is contrary to all reason and analogy to suppose that the necessary knowledge can either be acquired or properly applied without minute and accurate acquaintance with the healthy and morbid conditions of the human frame.

That in order to furnish the means for attaining this desirable end, and for securing the best possible qualifications in those entrusted with the important responsibility of ministering to the public health, universities and societies have been formed; an arduous and expensive course of education enjoined; and penalties attached to the infringement of regulations, which enlightened experience and legislative enactment have found to be essential, though hitherto insufficient safeguards, against the misdirected and injurious efforts of the ignorant or unprincipled Quack.

That while the utility of the medical profession is thus publicly recognised, and much laudable anxiety shown for securing the attainments and respectability of its members, its privileges are glaringly and unjustly infringed by the success and pretensions of unqualified pretenders, whose assertions, while they are repudiated both by reason and experience, exert a powerful and deadly influence over the health of a too easily deluded population.

That the absence of any legal means for the suppression of Quacks and Quack Medicines, and the positive encouragement afforded them by the sys-

tem of stamps and advertisements, either implies the *inutility* of qualified medical men, or involves a flagrant violation of their rights, by depriving them of that protection and consideration which a just regard for the public health imperatively demands, and to which, as a formally authorised and privileged body, they are legally entitled.

That the public having no means of discriminating between the spurious and properly qualified medical practitioner, it urgently behoves Government itself to provide, as far as possible, for the health of the community, by extending efficient protection to the privileges, while it enforces evidence of the acquirements and capabilities of those who are entrusted with so important and difficult a charge.

It is therefore humbly proposed, that all Patent, Quack, and Secret Medicines be abolished.

That no medicine be advertised, the real composition of which is not appended, and its efficacy properly attested.

That no individual (druggist or others), who has not complied with existing regulations, be allowed to exercise the healing art; and that all establishments nominally devoted to the same purpose, but conducted by persons not properly qualified, be declared illegal.

That all established medical bodies shall have the power of expelling from their halls, and expunging from the list of their members, all those who have recourse to unprofessional modes of gaining notoriety. And your petitioners will ever pray, &c."

CARBONATE OF SODA IN LARGE DOSES. By Mr. NEVILLE.

Mr. Neville has recently published a small, but very well written volume on mental derangement. But, as the greater part of it is eclectic, or, in other words, compiled from the best authorities, it is unsuitable for a review—being itself, indeed, an analysis. There are several original remarks, however, and observations scattered through the volume, and the following passage contains some curious matters which we deem worthy of selection. It is on the exhibition of soda, as a corrector or preventive of indigestion and its multiplied horrors.

"We selected two healthy young monkeys, nearly of an age. We preferred them to any other, in this instance, for experiments, on account of their similitude to man in their omnivorous capacities, as also in their passions. These creatures we had placed precisely in the same circumstances, and treated as nearly as might be in the manner in which we are accustomed to treat ourselves in society; that is to say, we had them placed in a comfortable warm room, gave them little opportunity for exercise, dieted them, according to the fashion of the times, with an abundance of the staple articles which constitute the food of an Englishman: they had tea, bread and butter, with some animal food, for breakfast; meat, vegetables, fruit pies, raw fruit, beer, and wine, for dinner; and tea and supper as these meals are taken among the middling classes of society. In short, they were treated every way alike; save that to the one, and not to the other, a drachm and a half of the carbonate of soda, dissolved in water, was regularly administered in three doses during the course of every day. At the end of six months the two animals presented a very different exterior, and were evidently in dissimilar states of health. The one to whom the soda had been given was plump and lively: the other was thin, spiritless, and obviously diseased. We had this creature killed; when, upon examining its body, we found the muscles to be shrunk and pale, the stomach and alimentary canal congested, the mucous coat of the former especially thickened, the right lobe of the liver indurated, and the mesenteric glands much enlarged.

For fear the above result might have been occasioned by circumstances with which we were not acquainted, or over which we had no control, the same experiment was repeated, with precisely similar effects, on two other animals

of the same species; and also a third time, upon two strong whelps of the Newfoundland breed of dogs, without any material difference being observable. The carbonate of soda appeared to prevent the accession of disordered function in each instance:—the animals that were pampered and over-fed, without having it administered to them, became sickly, and pined; those who took the salt three times a day throve, and enjoyed to all outward appearance the best state of health; nor, upon dissection, could any trace of disease be found in their bodies, which was always very apparent in those of the others."*

The author relates some instances of the beneficial effects of soda in children. The following is an example.

"Twin boys, very healthy children, were placed, as nearly as might be, in similar circumstances, with two different and excellent dry nurses. One child was observed to thrive amazingly; but the other looked puny, and was evidently in indifferent health. Upon expressing our particular satisfaction at the appearance of the robust infant one day, the nurse, with a very complacent look, begged to assure us that 'it all came of her bottle.' On analysis of this medicine; we found it to contain a mixture of liquor potassæ, infus. rhei, aqua anethi, and simple syrup. This mixture she was in the habit of giving to her little charge in the dose of a tea-spoonful night and morning, and more frequently still when he did not seem quite himself; though the original instructions prescribed only a few drops."

A gentleman, aged 40 years, had suffered so long and so severely from indigestion, that his life became a burthen to him. He was persuaded by our author to take "two drachms of carbonate of soda, twice or thrice a day, in a bitter infusion." Though startled at the magnitude of the dose, he made the trial. Five months afterwards, Mr. Neville learnt from this gentleman that, on the very first day of the trial, he felt himself a new man. At the date of the letter, he was eating and drinking, *ad libitum*, having recovered his strength, and grown hale and stout.

"A lady of distinction, whom we visited for some time, along with her ordinary medical attendant, a practitioner of eminence, suffered from indigestion nearly or altogether in as great a degree as the gentleman whose case we have mentioned above. All dietetic means, combined with the exhibition of alteratives, aperients, small doses of the alkalies, &c. had also proved utterly unavailing in his instance. At our earnest request, the patient was prescribed an ounce of carbonate of soda, divided into five equal portions, in the course of the four and twenty hours. Under this medicine alone she rapidly and completely recovered, regaining all her former spirits, and once more presenting the plumpness and bloom of perfect health."

There is no doubt that acidities in the stomach and duodenum are productive of singular irritability in the mind and the whole of the nervous system. But we much doubt whether the carbonates of soda and potash can be taken in the above doses with impunity. We have known several instances where much smaller doses taken regularly have appeared to render the mucous membrane of the bowels more instead of less irritable. The constant use of it appears to us to clear away the mucus which is the natural defence of these parts against foreign matters that must pass along their surfaces.

* Neville on Insanity, p. 174-6.

The Philosophy of Decapitation.*

The sublime soliloquies and meditations of Hamlet and Macbeth are likely to be renewed in the medical world. Macbeth, with sorrow and alarm, remarks:—

"Time was,
That when the brains were out, the man would die;
But now!"

* Dr. Rigby—Med. Gazette, No. 435, April 1836.

Hamlet philosophises in a still more exalted strain.

[come,

"Yet in that sleep of death, what dreams may
When we have shuffled off this mortal coil,
Must give us pause."

The great physiological question that now agitates the breasts of phlegmatic German and imaginative Frank, is the state of sensibility and moral feeling after decapitation by hatchet, sword, or guillotine! It is well known that "Charlotte Corday's face blushed after decapitation, when the executioner struck it a blow on the cheek," though some sceptics have affected to doubt the truth of this authentic fact, as they doubt, indeed, even the great truths of Holy Writ. The ingenious author of this paper (which was read at the College of Physicians) quotes largely from Dr. Nasse of Bonn, and he thinks it is not difficult to explain, "both on physiological and psychological principles, that the head must die after decapitation." But he says that it is by no means so easy to explain how and why the head dies, when thus suddenly divorced from the body. When we consider that cessation of the heart's action, even for a few minutes, destroys the life of the individual, head, body and members, we can be at very little loss to conceive how and why the head should die, when it receives no more blood from the heart—and loses a good deal of what circulated in its vessels. But passing over this how and wherefore, we come to some staggering proofs that the decapitated head (which is rather an Hibernicism) preserves for some time a kind of independent existence, contemplating, with various emotions, the assembled spectators—expressing surprize at certain sounds and words—turning the eyes after particular objects—and, in short, all but entering into conversation with the priest and the executioner! Various proofs of this are authentically recorded. The lips of Mary Queen of Scots continued praying (not audibly, but visibly) for a quarter of an hour after decapitation. "Wendt relates that, having put his mouth to the criminal's ear, and called him by name, the eyes (of the decapitated) turned to the side from which the voice came." The authorities of Fontenelle, Mogon, Guillotin, Nauche, and Aldini, are quoted to prove the same *fact*.

"As the word 'MURDER' was called into the ear of a criminal, who was executed for this crime at Coblentz, the half-closed eyes opened wide, and he stared, with an expression of astonishment, at those who stood before him."*

If honest DAN, the member for all Ireland, were to hear such a statement, his observation would, doubtless, be—"this beats Bannagher, and Bannagher beats the ———."

Now we do not accuse the learned author of the paper of believing one word of these and various other well-authenticated facts:—on the contrary, Dr. Rigby is evidently a sceptic—and so, we believe, is every one within the confines of the British Isles, who has a brain the size of a pineal gland. We believe that, since STEVENS' celebrated "Lecture on Heads," there has not been a more capital hit than this discourse on decapitation, especially when the place of its delivery is taken into account. The Temple of Esculapius, in Pall-mall East, is becoming quite a tragic theatre—a Golgotha—an Abattoir—where the deaths of kings, and the decapitation of criminals, are enacted with classic eloquence, and pathological philosophy.

ON RUPTURE OF THE HEART. By Dr. HALLOWELL, OF PHILADELPHIA.†

Dr. Hallowell, who appears to be a well informed and judicious young physician of America, has published a very creditable paper on Rupture of the Heart, in our Trans-Atlantic contemporary. The paper is too long for insertion in our columns, but we will present a sketch of the leading facts and observations contained in it. The compara-

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* Med. Gazette.

† Amer. Jour. of the Med. Sciences.

tive rarity of the disease, and the imperfect accounts which we possess of it, induce us to extend the present notice beyond what we might otherwise do. Dr. Hallowell observes:—

"Spontaneous rupture of the heart is of rare occurrence. Neither CORVISART, LAENNEC, BERTIN, nor SENAC, whose experience in cardiac diseases was very great, met with a single case of it. The number of well-attested observations amounts perhaps to sixty. I have collected thirty-four of them in various publications, with but little research. In the history of these cases, which is often very imperfectly detailed, it is stated that the patients had been affected for a greater or less length of time, with palpitations, and had experienced frequent attacks of lipothymia, or complained of pain beneath the sternum and tightness and weight across the chest, &c. these symptoms being no doubt dependent upon one or more of the morbid conditions to be hereafter noticed."

Death usually takes place suddenly; but instances have been recorded in which hours, nay, we are told, even years, have elapsed, between the cardiac rupture and death.

The accident usually occurs in persons in advanced life. Of the thirty-four cases collected by Dr. Hallowell, the age is precisely stated in twenty-three only. Of these, nine were between seventy and eighty, six between sixty and seventy, five between fifty and sixty, two between forty and fifty, and one between twenty and thirty, (from dilatation.) Sixteen of the thirty-four individuals were males, and eighteen were females.

The rupture occurs, for the most part, in the left ventricle, in its anterior wall near its middle. In the above-mentioned cases, the place of rupture is stated in thirty-one. Of these there were three ruptures of the right auricle, none of the left, two of the right ventricle, and the remaining twenty-six of the left ventricle.

The rupture varies in size from an almost imperceptible aperture, to a slit an inch or more in length. It may be single, or there may be several.

The tissue of the heart, surrounding the place of rupture, will be found in one of the following conditions.

1. In a perfectly healthy state.
2. In a state of ulceration.
3. Hypertrophied with or without ramollissement or softening.
4. Softened to a greater or less extent.
5. Dilated and thinned.
6. To have become the seat of a partial dilatation.
7. To have undergone a fatty degeneration.

On each of the preceding states Dr. Hallowell offers some remarks.

1. Dr. Hallowell has never met with a perfectly satisfactory example of rupture of the heart independently of any alteration of its tissue.

2. Numerous cases of rupture dependent on ulceration of the heart are upon record. Omitting many mentioned by our author, we may notice two instances in our Royal Family. George II. died of rupture of the heart in the act of defæcation; and the Duchess of Brunswick died of the same malady. On examination, there was found an ulceration through the walls of the right ventricle, which had commenced externally and gradually penetrated inwards.

The ulceration may commence on the external or the internal surface of the heart.

3. "The next form is that of *hypertrophy, with or without ramollissement.* When the latter of these states exists, it is often found to be connected with ossification and contraction of the ventriculo aortic orifice. The mitral valves being closed to prevent regurgitation, it is easy to conceive, that the blood, finding no egress, is powerfully acted upon by the ventricle which, stimulated to violent contraction by the double impulse of powerful mental excitement, and the reaction of the mass of fluid within its cavity, may give way, and the blood be effused within the pericardium. In one of the cases recorded, it is also stated that the arteria innominata at its origin was so diminished in its diameter by atheromatous depositions between its coats, as to leave a passage not more that one-eighth of an

inch in diameter, and the left subclavian artery was in like manner diseased, and diminished one-half its calibre. Softening, associated with hypertrophy, may be either general or partial,—it may be confined to the muscular structure immediately around the rupture, or it may exist in patches. The substance of the heart in the place of rupture, is sometimes reduced into a soft yellowish pulp, without any trace of muscular fibres."

4. The heart may be simply softened to a greater or a less extent—an alteration the precise cause of which would still seem to be uncertain. In many instances it appears to be decidedly the result of inflammation; in others, it may be, as Laennec supposed, an alteration sui generis.

5. The heart may be dilated, with thinned parietes. Dr. Hallowell cites the particulars of several cases of rupture of the heart in this condition. In two, the right auricle gave way; in one, the right ventricle.

6. The rupture may result from partial dilatation, or aneurysm. Talma, laboured under this disease. M. Breschet, from an examination of ten cases of this disease, has arrived at the following conclusions.

1. That the heart may be affected with aneurysm of a different nature from that ordinarily described.

2. That this disease ordinarily affects the left ventricle.

3. That it exists most commonly at the apex of the heart.

4. That this aneurysm, from the mode of its formation, the state of its parietes, and the contents of its cavity, closely resembles false consecutive aneurysm in the sense given by SCARPA to the term aneurysm.

Passing over the detail of some of Breschet's cases, as of others, we may notice one communicated by Dr. Hallowell himself. He saw it in the Salpétrière, at Paris.

Case. An old woman, æt. 82, was admitted into the hospital in November, 1832, with paralysis, dyspnœa, cough, and bloody expectoration. She had had fits of palpitation. Nothing particular was observed in the sounds of the heart. The pulse was rather feeble, and slightly accelerated. She died eight days after her admission.

Dissection. Passing over other appearances, we will limit ourselves to the condition of the heart. The pericardium contained a small quantity of transparent serosity. The heart was of the ordinary size, but singular in appearance, its point being very saillant, projecting anteriorly, and covered with a pretty large quantity of fat. The greater part of the fat was removed with care, which reduced the sac to a lamina of very slight thickness. The left ventricle was then opened transversely, and a second longitudinal incision made as far as the orifice of the tumor, which was about two and a half lines in diameter—a female catheter being introduced with great facility. It resembled the neck of a herniary sac; the tumor was of a roundish form, slightly conical, the point projecting forwards. Its transverse diameter measured about an inch—its longitudinal fifteen lines. Having continued the perpendicular incision to the summit of the sac, the fleshy columns of the ventricle were seen to advance within its interior, becoming much thinner. The muscular structure of the heart extended as far as the summit, being there but a line, or less, in thickness. It might almost be said that the inner surface was immediately in contact with the pericardium. Its cavity contained a quantity of liquid blood, surrounding a blackish coagulum of the size of a filbert. This coagulum did not adhere to the sac, and was not formed of concentric layers, as in aneurysm of the arteries. The left ventricle was slightly hypertrophied, its cavity appearing to be of the natural size, (excentric hypertrophy). The right ventricle seemed slightly dilated, and there was a considerable ossification about the left auriculo-ventricular orifice. Several smaller ones were observed at the ventriculo-aortic orifice, the largest in the middle sigmoid valvule. The orifice, however, was not sensibly contracted. The coronary arteries were dilated—a female catheter was introduced without difficulty.

Breschet states that these aneurysms are usually found at the apex of the heart; but in seven well-authenticated cases, the tumor was at the side or base of the ventricle.

7. Rupture from fatty degeneration of the heart is the last variety. The structure of the heart is more or less converted into a substance, possessing the physical and chemical properties of fat. Dr. Hallowell relates a case of this rare affection which came under his own observation in Paris.

Case. An old woman, æt. 76, was found dead in the privy of the Salpétrière. She had supped with a good appetite on the evening previous to her death.

Dissection. There were ossifications of the falx cerebri, and in the inferior and posterior surface of the medulla spinalis.

"On opening the thorax, the pericardium was seen greatly distended, and presenting a black appearance. An incision being made into it, the heart was displayed, surrounded by an enormous clot of black blood. This was removed in one piece, and appeared to weigh about ʒxij. Before removing the heart from the chest, we examined, with care, the spot at which the rupture took place. There were two small linear openings, three or four lines in length, separated from each other by an interval of three lines, situated on the anterior face of the left ventricle, one-fourth of its length from the apex. An attempt was made by M. Cruveilhier to penetrate within the cavity of the ventricle through the opening, but without success. A longitudinal incision was now made through its parietes, and the cause of the obstruction at once made evident in their narrow and sinuous course, uniting near the centre, and communicating with the cavity of the ventricle by a single opening. The thickness of the wall of the ventricle was but slightly diminished; around, and a little above the rupture, in the part corresponding to the external border of the ventricle, the tissue of the heart seemed less red than in its natural state, and especially than in the interior of the septum. There was at the same time a peculiar marbled appearance, exhibiting yellow streaks, not of a roundish form, whose direction was parallel with that of the fleshy fibres of the heart. These yellow streaks were not much softer than that part of the heart surrounding them, but the substance of the heart, when cut into thin slices, exhibited a friability, comparable to that of the liver. This condition of the ventricle appeared to be a fatty degeneration. The right ventricle was covered with a considerable quantity of fat; it presented in other respects nothing worthy of note."

The muscles of the back were partially converted into fat; so were those of the legs.

The preceding sketch of Dr. Hallowell's paper may not be uninteresting or uninstructive to those who take an interest in the pathology of the heart.

Occlusion of Cystic Duct—Lining Membrane of Gall-Bladder changed into a Pus-secreting Surface—Gall-Bladder enormously enlarged, and filled with Pus and Gall-Stones. By James Johnson, M.D.

Mr. Tozer, a chemist in Piccadilly, had consulted me occasionally for two years or more, always complaining of deep-seated pain in the region of the liver, besides a number of dyspeptic symptoms, as heart-burn, uneasy and protracted digestion, irritable bowels, turbid urine, and unhealthy motions. He had had some attacks of gall-stones; but I never saw him in any of these attacks. The eye, and even the skin, were sometimes slightly tinged yellow. I made many and careful examinations of the seat of pain, but never could discover anything that could at all explain the nature of the complaint. Besides the usual remedies for indigestion, leeches, blisters, and even issues were employed, but with little or no relief. I became, in fact, tired out with listening to the host of miseries which my patient described, and at last thought that he was hypochondriacal and ex-

aggerated all his dolorous feelings. On the 20th of March, 1836, however, Mr. Tozer was seized with such violent and excruciating pain, in the usual place, accompanied by fever, vomiting, and rigors, that no doubt remained in my mind, as to the presence of inflammation in some structure or other. He had, in the course of that and the next day, some sixty or seventy leeches applied besides blisters, and antiphlogistic measures of every kind. Very little relief was obtained. The shiverings recurred occasionally, and there was generally a high range of evening and nocturnal fever, with morning perspirations. A few days after this new train of symptoms there occurred such a violent diarrhœa, from some active aperient medicine, that we thought he would have died. Some discharges of blood, also took place from the bowels. The original pain continued, and no examination could detect its seat or nature. Dr. Bright and Mr. H. Johnson attended this unfortunate patient with me, and both of them came to the conclusion that abscess had taken place in the liver. I confessed all along that I was totally unable to form any clear opinion of the pathological state of the case. This unfortunate sufferer lingered, under fever, diarrhœa, and intestinal hæmorrhage, till the 14th April, when death put an end to his sufferings.

The body was examined by Mr. Johnson, in presence of Dr. Bright and myself. The emaciation was considerable; but there was very little yellowness of skin. On opening the abdomen, a globular tumor was seen projecting about half an inch beyond the thin edge of the liver, to which it was intimately adherent. When touched it fluctuated, and evidently contained a fluid. When opened a pint of thick purulent matter issued, mixed with a large quanty of biliary calculi, some quite soft, and others of firmer consistence. The parietes of the tumor or sac, were then carefully traced, and they were found to be intimately adherent, not only to the liver above, but to all surrounding parts, by ancient adhesive inflammation. They adhered to the duodenum, pancreas, and even the kidney of that side. It was clearly the gall-bladder itself, thickened, diseased, and, in some places, ulcerated. Its duct was obliterated all but about an inch—this cul-de-sac being next to the ductus hepaticus and communis. The internal surface of the gall-bladder had become a secreting surface, probably from the irritation of the calculi, and the ductus cysticus being obliterated, the secretion and distention went on till the gall-bladder had attained this enormous size.

Thus it might, in some sense, be said to have been a suppuration in the liver; but still, it was not an abscess, according to what we mean by that word generally. It was, in short, a case of biliary calculi, followed by occlusion of the ductus cysticus—purulent secretion—great enlargement of capacity. The ductus hepaticus and communis were not stopped; but the remarkable enlargement of all the branches of the hepatic ducts, even to the pori biliarii, shewed that free egress of the bile from the liver had not always obtained. The structure of the liver itself was not altered, though the parietes of the gall-bladder appeared, in some places, eroded through, where they were adherent to that of the hepatic structure.

Notwithstanding the long-continued diarrhœa, and repeated discharges of blood from the bowels, there was no ulceration or other disease in those parts.

PARALYSIS OF THE TONGUE AND MUSCLES OF DEGLUTITION, WITHOUT APOPLEXY OR ANY DIMINUTION OF THE SENSORIAL FUNCTIONS. By JAMES JOHNSON, M.D.

A lady (Mrs. W.) sister of the celebrated Mrs. Siddons, aged 76 years, had been subject to pain in the back of the head, for 20 years or more. She had also had a distressing and buzzing sound in the ears, especially in the left ear—but, in other respects, she enjoyed general good health. About two years before the date of my present visit

(Monday first of February 1836), I saw Mrs. W. in Great Russell-street, and she then only complained of her usual head-aches. She was preparing to entertain a large dinner party, and invited me to join it. I heard no more of this lady, till the above date, when I found her in the most deplorable condition. From having been very embonpoint, she was reduced to a state of comparative emaciation. Her countenance exhibited indescribable distress, and she was unable to utter a single word. She made attempts, indeed, to cloathe her ideas in language; but only produced inarticulate sounds, which I could not understand. Her maid, however, who had lived long with her, could comprehend her meaning tolerably well. Her intellects were in a state of perfect integrity. The loss of speech was the least part of the misfortune. The power of deglutition was so nearly destroyed, that it was with the greatest difficulty she could swallow a teaspoonful of thin jelly—some of which was ejected from the mouth. She was literally perishing by hunger and thirst, though not feeling the common sensations of either. She was unable to put out or to move the tongue. This organ appeared to be shrivelled and drawn up into knots. The present symptoms had commenced about four or five months previously, and increased in the most gradual manner, till they had acquired their present state of intensity. As sustenance was the most pressing indication, a tube was ordered to inject broth into the stomach, and enemata of the same, with fifteen drops of Battley in each, were directed to be thrown up every eight hours.

Wednesday, 3d February. The lavement was tried on Monday evening, and retained. She slept tolerably well that night. On Tuesday it was twice repeated; but she became sick, and vomited much bile. On Wednesday Mr. Blood (her medical attendant) and myself injected about six ounces of beef-tea into the stomach, by means of the stomach-pump. She bore it very well, and was not sick while we remained. She had a natural motion yesterday. I think she appears to have rather more animation in her countenance. She got down a few tea spoonfuls of coffee this morning.

Saturday 6th February. The injection into the bowels, and the introduction of some broth into the stomach was practised on Thursday and Friday. They were all retained, though she was once or twice sick, and brought up some bile. She certainly appears rather better to-day, and can produce a slight protrusive motion of the tongue. She sleeps tolerably well, and this morning got down a small quantity of coffee, and a very minute portion of bread and butter, though with great difficulty. She has now great tenderness in the epigastric region, apparently from the distention of the stomach, so long collapsed, and the introduction of broth into an organ which has been unaccustomed to nutriment for so many weeks. A mustard poultice was ordered to the pit of the stomach, and it was suggested that galvanic shocks should be thrown from the back of the head to the front of the larynx, in the course of the eighth and ninth nerves or their branches.

Saturday, 13th February. I have visited this lady two or three times since last report. She can receive more liquid nourishment into the stomach than at first, before sickness or attempt at vomiting is made. I may say ATTEMPTS, for she never actually vomits. A very small portion of the last part of the fluid injected, seems to regurgitate from the lower extremity of the œsophagus, but no more. Galvanic shocks were thrown three times, by Mr. Le Beaume, along the nerves. They produced convulsive motions in the tongue and muscles of deglutition. This day (13th February) she could protrude the tongue a little beyond the teeth, and I could understand several words which she attempted to utter. Notwithstanding the nutriment which is injected daily into the stomach and bowels, I think she loses power and flesh. We have now determined to mix equal parts of broth and arrow-root, in order to vary the species of nourishment—the urine is clear, the fæces

(though in small quantities) are natural—the mental faculties unclouded.

February 19th. She remains nearly in *statu quo*. The galvanism has done no good. She sleeps much better, however, and retains the broth injections without discomfort. The same cannot be said of the arrow-root and milk thrown into the stomach. It makes her sick, and part of it has lately returned. She still emaciates. There can be little doubt that the pneumogastric nerves are greatly impaired, as far as the stomach is concerned. She evinces no difficulty of breathing. There is no sense of hunger or thirst.

Monday, 22d of February. She is evidently sinking, and no farther attempts are made by galvanism, or the introduction of fluids into the stomach by the tube. Arrow-root and broth are thrown up daily into the bowels, as they now produce little or no inconvenience. There is no paralysis of any other muscles than those of the tongue and pharynx—not the least aberration of intellectual faculties.

Sunday, 28th February, 1836. She sunk in the most gradual manner, and expired this morning, at 1 o'clock, A.M. having been insensible for 24 hours; but able to move her arms till within a few hours of her death.

Dissection. The body was examined by Mr. Henry James Johnson, in presence of Mr. Blood, Mr. Bate, and myself.

The vessels of the brain and its membranes were extremely vascular, with some serous effusion between the membranes. The skull was remarkably thick. The substance of the brain was particularly firm. Very little fluid in any of the cavities. The origins of the nerves up to the eighth and ninth pairs were examined, but no lesion could be found. On subverting the brain, the pons varolii and medulla oblongata, together with the superior portion of the medulla spinalis, appeared rather wasted, and their substance somewhat softer than the other parts of the brain. The left vertebral artery, from its emergence from the bony canal to its termination, was dilated to more than the size of the carotid, and thus pressed on the corpus olivare and corpus pyramidale of that side, which appeared smaller than those of the opposite side.* The origins of the left eighth and ninth nerves were consequently pressed upon. The right vertebral artery was remarkably small. On tracing down the eighth pair and the œsophagus through the thorax, we came to an aneurysmal pouch or dilatation of the descending aorta, the size of a large walnut, over which the nervus vagus of that side was stretched in the form of a C. It did not appear that the calibre of the œsophagus itself, was diminished at this place, and therefore the inability to swallow did not arise from mechanical causes. If the pressure on the origins of the nerves had existed, *on both sides* alike, the cause of the paralysis of the organs of speech and swallowing, would have been here incontrovertible; but it may fairly be presumed that such pressure would have been incompatible with life for a single day. The pressure, on one side, may have been sufficient to paralyze the muscles of the tongue and pharynx, without immediately destroying the functions of respiration and digestion, which were carried on by the opposite nerves for a time—but only for a time. The connexion of the phenomena during life with the *post mortem* appearances, is here, probably, as evident as in most other cases where we are accustomed to trace it.

ADVANTAGES OF NEW REMEDIES.

If there are some disagreeable circumstances connected with the performance of the duties of a Journalist, he has peculiar sources of gratification to oppose to them. Scarcely an editorial period passes, but it devolves on him to announce the pleasing intelligence that some incurable disease may be cured. To a philanthropical reviewer

* The vertebral artery was afterwards found enlarged at its *origin*, and the probability is that it was so in the bony canal.

what can be more productive of pure delight, than the spectacle of the miraculous effects of almost all the new remedies? He is able to announce to afflicted mortality, that Dr. A. cures amaurosis, and paralysis dependent on organic changes by strychnine; that Mr. B. removes primary and secondary venereal symptoms utterly opposed in character—lichen—tubercle—and phagedæna—by iodine; that Mr. C. routs scrofula, malignant tumors, rheumatism, and almost every nosological variety of disease by the same powerful yet harmless remedy; that each has his favourite mode of curing tetanus, by medicines so alike in their modus operandi as blisters, tobacco, purgatives, or carbonate of iron; and that every now and then some new drug is thrown up, which, like creosote, may be given in every case with almost equal advantage.

Gratified as an editor must be, he soon learns to be astonished that, when so many specifics exist, any further specifics should be wanted. Incredible as it may appear, each writer would seem to disregard the discoveries of another, and every new marvellous remedy is ushered in, with expressions of regret at the inefficacy of the rest. This is indeed surprising.

Perhaps we may explain so striking a contradiction, by supposing that the profession experiences between these numerous specifics the same feeling of uncertainty as the ass did betwixt the bundles of hay. Doubting which to prefer, he died from absolute starvation. How else are we to account for the still unabated fatality of some diseases, and the obstinate characters of others—fatality and obstinacy that are otherwise irreconcileable with the triumphant success that we daily read of.

It has always been a sort of reproach to physicians, that fashions prevailed in medicine as in coats. If a plausible doctor wrote on the nerves, nervous disorders immediately prevailed. If asthma was the subject of his erudite researches, lo, the whole tribe of spinsters and of dowagers became exceeding short of breath. But now we have another description of mode. Every month enjoys its new remedy, and its patron hands round the *carte* of its virtues.

There is one peculiarity about a new remedy, which distinguishes it pre-eminently from all the old ones. An ancient tonic is not found to possess at once the apparently inconsistent properties of a tonic and a febrifuge. But a modern drug is like old Balderson in the Bride of Lammermuir, who was at once cook, scullion, seneschal, and valet-de-chambre—*it* increases action or arrests it, attenuates or fattens, cures a dropsy, a marasmus, a fever, or a pox, just at the will of the prescriber. It must be owned that this is an important advantage possessed by the new remedies.

It has been thought by some persons, who ought perhaps to have known better, that the cultivation of morbid anatomy would tend to philosophize our experiments with medicines. These short-sighted expectants have materially underrated the effects of two powerful principles in human nature—the love of novelty and the love of noise. Both passions are gratified when their owner appears the successful experimentalist with a novel remedy—the Columbus in the New World of the materia medica.

The patrons of the new remedies would seem, in their experiments, to proceed on the principle of that hospital physician, who ordered his clerk to purge the south ward and vomit the north. They appear to have heard of the observation of the late Dr. Pearson. He was testing the effects of the sulphate of barytes. He gave it to almost every patient under his care. When surprise was expressed at this method of procedure, he replied naively enough —"How can I tell what its effects are, unless I give it in every disease." To be sure, a patient or two may die; but that cannot be balanced against scientific curiosity.

Reasonable as the practice and opinions of these gentlemen may be, there are some individuals who recommend a contrary course of proceeding. Actuated by, perhaps, an improper regard for the rules of logic and the principles

of inductive reasoning, they prescribe a course far too methodical and slow for the present day, when every body hastens to introduce himself to the weekly journals. They are so far behind the spirit of the times as to suppose that the following are requisites for conducting a philosophical examination of the properties of a new medicine. They think that :—

1. We should ascertain by appropriate trials, the effects of the drug on the functions, when undisturbed by disease. We should learn, or try to learn, whether the remedy has simply one action on the body or several—whether its effects are altered in kind, or merely affected in intensity, by increase or diminution of dose, or by different states, not incompatible with the health of the recipient. This may be termed our acquaintance with the elementary properties of the drug.

2. Having ascertained its physiological action, we should select those cases for experiment in which such a physiological action is desirable.

3. Applying it in such cases, we should carefully investigate its value as compared with other medicines possessed of similar or analogous properties. Here it is that experimentalists almost always sin. Nine times out of ten the last remedy is vaunted at the expense of others and familiar ones, possessed of equal or superior powers.

4. Pursuing the experiment in the manner we have mentioned, a man of observation has acquired an extensive acquaintance with the powers of the remedy he has been testing. He knows enough, at all events, to obviate the probability of his doing mischief, and now he may carefully experiment in other cases, where reasoning does not point out so obviously the propriety of the attempt. But this, which is the last step of a rational surgeon and physician, is, under ordinary circumstances, the first. Anxious for éclat, the experimenter runs a-muck at every horrid or incurable disease, and in "a little month," indeed much less, out comes the catalogue of marvellous cures, that would make even Katerfelto stare. It is in this sort of experiment that most judgment is required; on the one hand, we are not to plunge wildly into extravagance, we are not, to "dip our hand in the lucky bag," with the slightest chance in the world of a prize—and, on the other, we must not be trammelled by theoretical considerations, and prevented from attempting to succeed, because, on hypothetical grounds, we ought not.

If there be any truth in the preceding observations, it is not every one who is calculated to investigate the properties of a new medicine. Independently of the mental qualities which we need not dwell on, mental qualities which are obviously requisite, and more requisite than common—independently, we say, of these, the experimenter should be well acquainted with pathology, in order that he may know on what he is experimenting; and he should be practically conversant with the effects of other medicines, in order that he may have a proper standard of comparison. When we add to these necessary ingredients in a philosophical experimentalist — caution in forming conclusions and deliberation in publishing them, we sketch a picture of what the majority of modern experimenters—are not.*

The preceding remarks may be deemed applicable or otherwise to the following recommendation of colchicum, as a remedy for tetanus, just in the ratio of the faith of our readers. For our own parts we grieve to say that we doubt, and we fear that colchicum will prove no match for *acute* tetanus. We say acute tetanus, because chronic tetanus, as well as the milder forms of that malady are well known to yield under many opposite methods of treatment, and, probably, in the main, from the powers of nature. However we will state the observations and experience of Dr. Smith, an American phy-

* We are happy to say that we possess some amongst us, who are happy exceptions to the inconsiderate class of persons whom the Reviewer describes. It is not necessary to mention any names.—EDS.

sician, practising at Port-au-Prince. We will insert a portion of his communication on the subject, contained in the American Journal of the Medical Sciences for November of last year.

"In Hayti," says Dr. Smith, "as in all warm climates, tetanus prevails to a considerable extent, but it would seem most confined to the natives, as I have never known a case to occur in an European, or any stranger whatever. It also appears, that persons in this country from the age of five years to thirty, or thirty-five, are most predisposed to attacks of this disease. In the course of little more than two years and a half, nine cases of tetanus have fallen under my observation, and the greater number of these were under my own care. Women do not seem to be so susceptible of tetanus in any of its varieties as men; of nine cases, only one having occurred in a female. Of the nine cases, two were traumatic, and were induced by very slight wounds, the remaining seven were idiopathic, no direct cause being present.

Traumatic Trismus.	2 males, under the age of 20, 1 died, 1 cured.
Idiopathic Opisthotonos.	3 males, under the age of 30, 1 died, 2 cured. 1 female, under the age of 40, died. 2 males, under the age of 25, cured.
Idiopathic Pleurosthotonos.	1 male, aged 15, died.

Total, 9—cured 5—deaths, 4.

The four last cases of tetanus which have come under my care, were treated with the Colchicum autumnale, the three out of the four recovered. The following is the general course I pursue, in the treatment of the disease:—On being called to a case of tetanus, my attention is first turned to the actual state of the bowels; constipation in this disease is at least a grave symptom, and should be relieved by injections. I prefer some emollient fluid for this purpose, because I believe that in almost all cases, there is conjoined with costiveness, some degree of intestinal irritation. I commence by administering an enema of ℔j. decoction of either flaxseed or the okra, (Ketmia gombo), cum ol. ricini, ʒiij. or ʒiv. for an adult. After this, fifty or sixty leeches are applied to the spine, from the neck to the sacrum; in my particular practice, I have made choice of the scarificators and cupping-glasses, and the result has been most satisfactory. When the muscles of the jaws and neck are affected, as is most usually the case, leeches are also applied to the mastoid processes; the moment the cups or leeches, whichever may have been used, are removed, cloths wrung out of a strong solution of the muriate of ammonia, are constantly applied to the whole of the vertebral column, the back and the neck. Internally I administer the vinous tinct. of colchicum, commencing with ʒss.; the dose is increased every half hour, and repeated until emesis or catharsis has been produced. As soon as one or other of these effects is obtained, this remedy is to be discontinued; if there afterwards occur any colic or griping, with exhaustion, as in all probability there will, I am in the habit of giving the spt. mindereri ʒss. every hour, with the addition of one-fourth of a grain of acetate morphine, in solution. If the surface be cold, and there be symptoms of collapse, warm applications are made to the extremities, and the axilla; and the muriated solution is discontinued. The seeds of the colchicum appear more permanent in effect than the bulb; I accordingly make a tincture as follows:—℞. Sem. colch. sicc. ʒij.; Vin. albi. hisp. ℔j. Infus. &c. as the books recommend.

All the cases of tetanus which have fallen under my care, have been, with two exceptions, treated as above stated, with a very happy result. The exceptions, were the two first cases I treated in this island, and in which I employed opium, general venesection, terebinth. &c. &c.; the patients were put into a warm bath, but, on being taken out of

the bath, the spasms became more alarming, the limbs more rigid, and in one instance, death immediately followed."

Dr. Smith appends a case to the preceding observations, but we think we may leave the recommendation of colchicum, as a remedy for tetanus, to the practical portion of our readers. Opportunities of testing its value are unfortunately too frequent.

GERMAN CONTRIBUTIONS TO PRACTICAL MEDICINE AND SURGERY, CHIEFLY DERIVED FROM RUST'S MAGAZINE FUR DIE GESAMMTE HEILKUNDE, AND COMMUNICATED BY ROBERT THACKER, M.D. Derby.

Polypus Uteri within the Womb successfully removed by Ligature.

This is one of three interesting and instructive cases of Polypus Uteri related by Dr. Buck, of Lübeck. The object of the narrator is to shew how erroneous is the opinion generally—we may almost say—universally received by surgeons, that morbid growths of this nature, arising from the fundus of the uterus, do not admit of removal as long as they are contained within the cavity of that organ. "Experience has taught me," says the Doctor, "that when the *os tincæ* is open, it is practicable to apply a ligature to a polypus within the uterus; and that this operation is always indicated whenever an inactive state of the organ renders it incapable of effecting the protrusion of its contents, and at the same time the constitutional disturbance threatens imminent danger to the life of the patient." Such a contingency, indeed, does not often present itself; and the operation in question is no doubt one which it will but seldom be necessary to have recourse to. That this necessity does, however, sometimes occur, the following case abundantly proves, and we may add, that it reflects not a little credit on Dr. Buck, who, undismayed by the known difficulties, and the supposed impracticability, of the operation, nevertheless undertook it, performed it with success, and thereby saved his patient's life. We shall extract the case at length.

"In January, 1834, I was called to see a poor woman, who gave me the following account of her sufferings:—She was 46 years old, had previously enjoyed good health, and was the mother of six children. Since the death of her husband, which took place nine years before, she had abstained from sexual intercourse. Two years previously, she was seized, in place of the ordinary menstrual discharge, with a violent hæmorrhage, which ceased after a duration of eight days, and for the space of a year did not return. In this interval she began to suffer from an oppressive sense of weight in the belly, pricking pains in the side and in the pelvis, difficulty in voiding urine, and a dragging sensation in the sacral and lumbar regions.

These symptoms gradually increased in severity, and about Whitsuntide, 1833, hæmorrhage from the uterus again took place, and continued to recur at short intervals until about six weeks before the period of my visit, when it ceased altogether, and a fluor albus, having an offensive smell, appeared in its place. I found the patient in a state of extreme emaciation, cachectic in her appearance, and so weak as to be scarce able to leave her bed. She complained of violent pains in the iliac region, which were augmented by pressure, and from time to time of slight pains resembling those of labour; her appetite was bad, her pulse small and quick, she coughed a good deal, and vomited occasionally.

On making a manual investigation, I found the uterus in its normal situation, the lips thin and flaccid, and the os uteri itself open, so that it admitted the index finger with facility. Within the organ, and apparently arising from its fundus, a polypus was clearly to be felt; it had the circumference of a large pear, was insensible to moderate pressure, and did not quite reach to the external orifice of the uterus. The parts were covered with a mucous exudation streaked with blood, and of an offensive smell.

I directed a plan of treatment calculated to improve her general health, in the hope that the labour-like pains would at length expel the polypus from the cavity of the uterus. Deceived in this expectation, I prescribed 24 powders, each of which contained half a scruple of secale cornutum, and these failing to produce any effect, nine others containing one scruple each; the latter were all taken in 36 hours; nevertheless, the uterus still remained in a state of inactivity, and even the stomach, an injurious action upon which has been attributed to this medicine, was not in any way affected by it.

Dreading the difficulty of applying a ligature to a polypus so situated, and as there were no dangerous hæmorrhages, I still waited, hoping that the powers of nature would finally effect the desired protrusion. But the health of the patient daily grew worse, the mucous secretion became more and more copious, and the cough, which had hitherto been dry, was now accompanied by an abundant and ill-looking expectoration, together with pains in the breast. Frequent though slight febrile paroxysms, nocturnal sweats, and a watery diarrhœa, added to the prejudicial influence of many privations, and the want of proper attendance, soon reduced my unfortunate patient to a state of complete marasmus, so that I already believed her end near, and certainly under these circumstances should have desisted from all operative proceeding, had I not convinced myself from previous experience, that now, the speedy removal of the polypus alone afforded a chance of recovery.

With the assistance, therefore, of Dr. Pabst, I undertook to apply a ligature round the root of the polypus, selecting for this purpose Jörg's double canula.* The patient being placed upon a cross-bed in a half-sitting position, I introduced the instrument previously oiled, and provided with a thread, upon the left index finger, and pushing it carefully through the os tincæ, between the polypus and the yielding uterine parietes, carried it as near the root of the tumor as possible. One canula being firmly held in this position, I at length succeeded, after many fruitless attempts, in passing the other one, with its concavity always turned towards the polypus, fairly round the pedicle, and I now joined the two together. The pain occasioned by the unavoidable friction on the inner surface of the uterus, was trifling, nor did this stimulus provoke the organ to the slightest contractile effort. On tightening the thread, I was convinced by the insensibility of the parts, that I had not included any portion of the uterus, a circumstance the more to be dreaded as the point where the ligature was applied, was quite out of the reach of the finger. During eight days, I daily drew the thread tighter, it then broke, and on examination I discovered that only half of the polypus had sphacelated away. A re-application of the ligature was successfully effected, though not without considerable difficulty, as the body of the tumor had much diminished in size and firmness, while the pedicle seemed proportionally thick and sinewy. In the mean time, the injurious influence of the copious and highly fetid discharge was, as far as possible, counteracted by the frequent use of antiseptic injections.

In the course of a few days, the last ligature came away, and at the end of a fortnight no remains of the polypus were discoverable; the uterus, too, had contracted, and the os tincæ soon after assumed its normal form.

The patient, who had hitherto been lying in an almost hopeless state, now recovered strength surprisingly fast; the diarrhœa, fever, nocturnal sweats, and puriform expectoration, quickly disappeared, and at the expiration of two months, with the aid of tonic medicines, she was restored to perfect health."

* I chose this instrument on account of its length, but found that the curvature at its upper end rendered the operation more difficult, and I now employ in preference two straight silver canulas which separate and unite with greater ease.

Vaginal Hernia of the Bladder, the Diagnosis presenting unusual Difficulties.

This is an extremely curious case, and one pregnant with instruction. It is related by Dr. Buck, of Lübeck, the same on whom we lately had occasion to pass a merited eulogium, but who now appears before us under a more questionable shape. It will be seen that he committed a great blunder in his diagnosis, which nearly led to very disastrous consequences, neither more nor less, indeed, than a summary excision of nearly the whole of the bladder. He, however, honestly confesses his error; and certainly there are few who would not have been misled by the remarkable combination of deceptive appearances which the following case presented.

"A woman, ætat. 54, of seemingly sound constitution, 12 years previously had borne her second and last child. The labour was long and tedious, and the placenta, which, according to the statement of the midwife, was adherent to the uterus, was brought away by the hand. From this period she frequently experienced a sudden sensation of emptiness in the abdomen, from which something appeared, as it were, to sink down, and at the same time a feeling of fullness and pressure in the vagina, all which symptoms soon disappeared on assuming the recumbent posture. Their character, however, became progressively more marked, and one day she discovered, projecting into the vagina, a round foreign body, which perceptibly increased in size, particularly after corporeal exertion.

Her situation as childrens' nurse in St. Ann's poor-house, not requiring hard labour, it was only after a lapse of some years that the tumour had so augmented as to protrude out of the vagina, and at that time, by abstaining for a while from all exercise, the patient was enabled to reduce it herself. She did not seek medical advice, and for many years, during which the tumour continued to increase in size and the protrusions in frequency, she always succeeded in replacing the body without assistance. At length, having descended lower than usual, it obstinately resisted all her attempts at reposition, and now remained stationary, forming a large and painful swelling projecting through the vulva. At no time had she experienced difficulty in passing her urine. For a quarter of a year she bore her sufferings in silence, still continuing to attend to her duties: and it was only when become incapable of quitting her bed, that she was induced to apply for medical assistance.

On examination, I found before the labia majora a hard body, equal in size to the head of a seven-months' fœtus, no where yielding to pressure, and covered in its greater part by cauliflower excrescences, which secreted an ill-smelling ichor; its lower third was not yet attacked by the ulcerative process, was of a vivid red colour, and presented very accurately, only on a larger scale, the form of the vaginal portion of the uterus. At the extremity of this part, a transverse slit regarded by us as the os uteri, admitted a probe to the depth of half an inch. The body of the tumour appeared closely invested by the inverted and protruded vagina, and its base had contracted firm adhesions with the inner membrane of the labia majora, so that inferiorly it was continuous, and formed a straight line with the perineum. On examination per rectum, the uterus was no where to be felt. I made many attempts to introduce the catheter in the usual way, but in this was constantly foiled, the urethral orifice being concealed by large and painful excrescences, which bled on the slightest touch. However, the urine was voided without difficulty, and in normal quantity, the only inconvenience being that resulting from the unavoidable wetting of the surrounding ulcerated surfaces: the evacuation was not followed by any perceptible alteration in the bulk of the tumour, nor did pressure upon the latter at any time occasion a desire to make water.

The state of the patient's health was as yet tolerable, although frequent slight attacks of fever, and much dejection of mind, made it sufficiently clear that the disease was beginning to act injuriously on the constitution.

I considered the case to be one of complete prolapsus of the uterus, which from exposure to many causes of irritation, in particular the air, the urine, and the frequent ill-directed efforts at reposition, had been attacked by a slow inflammation, which at length had passed into cancerous ulceration.

In order to liberate the patient from a disease which must, else, inevitably prove fatal, I determined to extirpate the cancerous uterus, a proceeding which I decided to adopt not only because it is a surgical aphorism that in such cases this operation presents the only chance of preserving life, but also from a consideration of the following circumstances :—the age of the patient, who had passed the grand climacteric, the manner in which the disease originated, viz. by external injuries alone, the completeness of the protrusion, and, finally, the still tolerable state of the general health. In these views of the nature of the disease, and of the plan which it was necessary to adopt, I was supported by many of my colleagues, practising surgeons and accoucheurs, who had frequently seen and examined the patient.

It was my intention to dissect the inverted vagina from the uterus, and then to remove the latter by separating its remaining connexions, at the same time carefully avoiding the adjacent parts.

The rectum having been emptied, the patient was placed upon the operation table, and fixed in the same position as in the operation for lithotomy. After many fruitless attempts by different individuals, who all acted under the supposition that the direction of the urethra was normal, Dr. M. at length succeeded in introducing the catheter into the bladder by holding the instrument almost perpendicularly, which would not have been possible had the bladder been in its natural position. As we were unable to feel the extremity of the catheter through the protruded body, but by examination through the rectum, distinctly discovered it at the posterior part of the swelling, we concluded, although feeling somewhat insecure with regard to our diagnosis, that the bladder had sunk down behind the prolapsed uterus, and rested against the posterior surface of that organ; a supposition which seemed to explain satisfactorily the perpendicular direction of the urethra. Notwithstanding this discovery, it was unanimously deemed necessary to proceed with the operation.

The tumour being a little raised, I made an incision several inches in length along its inferior surface, and commenced dissecting away the thickened vagina, carefully avoiding the adjoining rectum by turning the edge of the bistoury towards the tumour. But to my astonishment, instead of exposing the substance of the uterus, I came upon true muscular fibres, and distinctly felt the catheter through the part from which I had removed the dense vaginal investment. These two circumstances convinced us, that the greater portion of the tumour was nothing else than the prolapsed bladder, but we were still unable to decide on the relative situation of the uterus, and whether, in fact, this organ formed part of the tumour. From the urethral orifice where the most considerable excrescences existed, I now made a sufficiently deep incision, united this with the inferior one, and thus dissected off the whole leather-like envelope, together with the fungous masses. The denuded bladder was in no place wounded, and it had lost so much of its hardness, although its parietes were still unusually thick and dense, that the catheter was easily discoverable at every part of its surface. The operation was rendered more difficult by a pretty severe hæmorrhage, which, however, after tying a few small vessels, soon yielded to cold affusions. The bulk of the swelling was now diminished by nearly one half, the surface was smooth and freed from cauliflower excrescences, and after some gentle attempts at reposition, it sunk a little back spontaneously. The patient, after taking a laudanum draught, was carried to bed.

The first days following the operation, with the exception of some degree of febrile excitement, her state on the whole was as favourable as could be expected: the appetite was tolerable,

her nights were passed quietly, she experienced but little pain in the parts operated upon, and none in the abdomen, which was also free from tympanitic distention. The parts were at first bathed with cold water, afterwards gently stimulating fomentations were employed. The urine, unaltered in colour, was drawn off from time to time by a catheter, which was retained constantly in the bladder. For several days the bowels acted naturally, but at a later period it was found necessary to administer an occasional enema. The prolapsed bladder continued to recede gradually, and the granulating surface presented a kindly aspect, and secreted healthy pus. Such was the state of our patient during three weeks and a half, and sanguine hopes were entertained of her eventual recovery; but she now gradually lost her appetite and sleep, emaciation commenced, and, attended by a slow fever, proceeded with rapid strides, the surface of the wound became dry and red, and a colliquative diarrhœa, which nothing could restrain, finally carried her off six weeks after the operation.

Autopsy. The body was extremely emaciated, and on the inner side of the left arm, we observed a lipomatous tumour of considerable size. The organs of generation, together with the bladder and a portion of the pelvis, having been carefully removed, the following facts were ascertained: the entire protruded body, which we at first believed to be the uterus, was a prolapsus of that part of the bladder uncovered by peritoneum, and which, in its gradual descent, had pushed before it the upper wall of the vagina. The lower third of the tumour, so closely simulating in form the vaginal portion of the uterus, was free from scirrhous degeneration, and formed a compact mass, superficially smooth, and of an almost cartilaginous consistence. An incision made into this part from below upwards, only reached the bladder at the depth of one inch and a half. The slit at its extremity, mistaken for the os uteri, and which had contributed to our error more than anything else, was formed by a peculiar duplicature of the vagina, the origin of which it is difficult to explain. Worthy of remark in this case was the extraordinary dilation undergone by the vagina. For the upper wall, with which the bladder is naturally in contact, could alone have formed the bag by which the tumour was invested: the remainder of the vagina anteriorly intimately united with the bladder, was continued up to the uterus as in the normal state. That the vesical hernia did not take place through a rupture of the vagina, was rendered evident by the thick leathery envelope of the tumour, as well as by the uniform absence of those symptoms which would necessarily have attended an occurrence of this nature. The coats of the protruded portion of the viscus were in a thickened degenerated state; those of the part covered by peritoneum, and which was still within the cavity of the pelvis, had suffered little alteration. The uterus itself was found lying in the concavity of the sacrum, in a perfectly healthy state, only somewhat higher in the pelvis than is usual.

Such is the history of this remarkable case, and when we regard the external appearances, in particular the deceptive resemblance of the hard and symmetrical extremity of the tumour to the vaginal portion of the uterus, and also the total absence of all symptoms indicating a lesion of the bladder, we cannot but believe ourselves justified in having mistaken the nature of the disease even until the eleventh hour. Had our diagnosis been correct, there must still have been a necessity for the operation, by which the cancerous and degenerated vagina was alone removed, without injury to the bladder or the surrounding structures."

The two following cases we select from a paper by Dr. Creutzwieser, a physician practising at Königsberg in Prussia. The first is brought forward by the author to shew—though, indeed, on this side of the German Ocean we are tolerably well acquainted with the fact—that in all compound fractures of the skull, it is not absolutely indispensable that the patient be forthwith trepanned. In the case under consideration, Dr. Creutzwieser did not tre-

pan only because he was not permitted: the man nevertheless recovered: query, had the operation been performed, would the case have then terminated favourably? We think that an English surgeon, under similar circumstances, would not have deemed such a proceeding necessary; but our readers shall judge for themselves.

Compound Fracture of the Skull, cured without Trepanning.

"Michael Wardowsky, a forester, aged 45 years, of a sound and robust constitution, went one morning to cut wood, accompanied by his wife, and having mounted a beech, and seated himself across one of the largest branches, the simple fellow, emulous, it should seem, of an exploit which has been performed more than once, commenced hacking with great vigour at that part of the bough between himself and the trunk of the tree! In due course of time the bough broke, and Wardowsky was precipitated backwards: he fell from a considerable height upon a waggon which chanced to be standing beneath, laden with dry wood, and alighting on the back of the head, the scalp at this part was torn up from its connexions to the extent of more than two inches. His wife, who was at work near the scene of the accident, hastened to him, bound a cloth moistened with urine firmly round his head, and led him carefully home. On his arrival, he was seized with continued vomiting, raved violently, tore the dressings from his head, and required the united strength of several men to hold him. He was at length securely bound down, and six hours afterwards I visited him.

On examining the wound, which bled freely, and ran from right to left obliquely across the occiput and over a portion of both parietal bones, I soon discovered a fracture of the left *os parietale;* it had the form of an irregular cross, and was about the size of a Prussian achthalber. Nothing could be clearer—here was a case for the trepan: but to this the wife and brother of the patient were resolutely opposed; it was in vain that I urged the necessity; they were not to be moved, and I was therefore obliged to give up the point. The fractured part was not depressed. The face being flushed and swollen, and the pulse full and frequent, I took 12 ounces of blood from the arm, and applied 20 leeches to the forehead and nape of the neck; I also directed the feet and legs to be placed in a hot mustard bath, and a clyster, composed of vinegar and decoction of chamomile, to be administered every hour. The following medicine was prescribed:—

℞. Nitr. depur. ʒij.
Aq. distill. ℥v.
Natr. sulphuric, ℥ss.
Aq. sauroceras. ʒj. M. Capiat æger cochleare unum omni semihorâ.

The separated portion of the scalp was retained in its place by a few strips of adhesive plaster, and a bladder filled with ice placed over the injured parts. In the course of a few hours the face became pale, the pulse slow, and the intellect clear; the bowels acted by a voluntary impulse, the vomiting ceased, and the patient fell into a quiet sleep. By persevering in the above treatment, and observing a very severe regimen, the second, third, and fourth days were passed by the patient in this favourable state: but at this period he suddenly became delirious, violent febrile symptoms presented themselves, the eyes sparkled, the urine was clear as water. An inflammation of the brain had supervened, and the game appeared lost. I immediately abstracted 12 ounces of blood, applied, as before, 20 leeches to the forehead, and directed a grain of calomel to be given every hour. After 24 grains of this medicine had been taken, and the venesection repeated to the amount of eight ounces, these threatening symptoms, contrary to expectation, entirely vanished, and within three weeks the patient was able to leave his bed.

In six weeks the cure was completed, and at the present time, two years after the period of the accident, Wardowsky still lives, and enjoys his usual good health."

Hydrocephalus Chronicus Externus.

On this case of chronic hydrocephalus, to which we have already alluded, we shall make no other remark than, that a more extraordinary one never fell under our notice.

"N. N., the illegitimate son of a poor woman, is now 26 years old.—The mother states that, at his birth, the head was soft, pulpy and unusually large, and that in his third year the fontanels were not yet closed. The growth of the child was slow, the period of teething occurred later than usual, and he was longer in learning to walk and to speak than children generally are. Not thus tardy was the development of the intellectual faculties, for, at the age of four years, the boy already gave evidence that he possessed a quick perception and a sound understanding. As he grew older, the organic disproportion between the head and the rest of the body became constantly more and more marked; and the deformity has at length attained a degree which, together with other morbid changes, I will now attempt to describe.

At that part of the head which corresponds to the junction of the sagittal and lambdoid sutures, there exists a depression, half an inch deep, and an inch in diameter: it is lined by the integuments and the hair of the head, and admits the half of a hen's egg, placed in the cavity with its more obtuse extremity downwards: the said egg is then observed to rise and fall synchronously with the expirations and inspirations. The entire left half of the face is normal and well formed, but the right is misshapen in all its parts, insomuch that the eye, the half of the nose, the ear, the half of the mouth, and the cheek are half an inch lower than the corresponding features of the opposite side, and their organic substance so much increased that the right side of the face presents the appearance of a large and elastic fleshy bag filled with water. If this pocket-shaped cheek is somewhat suddenly pressed upwards, the hole at the upper and back part of the head is instantly filled up, and the object placed within it, an egg or an apple, thrown out! However strange this may sound, it is nevertheless true, and on a closer examination of the head, the phenomenon appears to be accounted for. It is then observed that the zygomatic process* of the *os frontis* is not in contact with the malar bone, but separated from it by a space which might admit a goose-quill; and farther, that a similar slit exists in the mastoid process of the temporal bone of the same side. Still more striking is the defect of formation in the inferior maxillary bone: it is divided into three parts, distinct from each other, and only held in apposition by the buccinators and the muscles of the face and neck. In each of these divisions are two sound teeth, fixed in equally sound alveoli, and during mastication, as may be supposed, the face of this unfortunate being suffers very strange contortions. The experiment already described proves the connexion of the water collected in the cheek with that in the cavity of the skull, and this connexion is no doubt effected through the medium of the above singular slits in the bone. At first I was inclined to believe that the fluid was situated immediately beneath the common integuments, and had no relation to the cerebral cavity, but the following experiment convinced me of the error of this supposition: I applied a bandage tightly round the head, so as to cut off all communication between the face and the parts external to the skull, and now observed that by pressing as before upon the right cheek, an instantaneous filling up of the cavity on the head nevertheless took place: and it is also to be remarked that this experiment always produced a transient giddiness.

The deformity of the face is still increasing, and the patient will soon find it necessary to support his protuberant cheek by a suspensory bag. His general health is not at all impaired, nor are his mental faculties in any degree weakened.

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* The external angular process of English anatomists.—*Tr.*

A post-mortem examination will one day afford a more accurate explanation of this anomalous case.

Paralysis Crescens ab imo.

An interesting case of this kind lately occurred in the practice of Dr. Johnson. A gentleman, now about 28 years of age, experienced an epileptic seizure nearly seven years ago, while under some violent excitement. In the course of the next five years he had, at very unequal epochs, four attacks of the same kind—all under circumstances of moral or physical excitement. One interval was upwards of two years. The last seizure was slight, and occurred in the beginning of 1834. Since that period, a new train of phenomena took place. He first began to perceive a diminution of power and sensation in his toes—then of the ankles—then of the knees, causing him to walk with tottering steps. When the paralysis had advanced thus far, the fingers became a little benumbed and less powerful—then the wrists—and now (April 1836) he cannot write, with much degree of legibility—nor assist himself by means of his hands or arms. Three or four months ago, the power of the bladder and rectum began to diminish. He is now quite incapable of expelling any urine, except by the action of the abdominal muscles, when he goes to stool, which is regularly once in 24 hours. Urine and fæces occasionally escape involuntarily. All his intellectual powers are in vigour. His memory is more retentive than it was seven years ago, prior to the epileptic attacks. His digestion is yet unimpaired. The functions of circulation, respiration, secretion, &c. perfectly natural. He got married about a year ago, to a young and beautiful lady. The powers of virility have diminished.

A great variety of remedies—or rather medicines, has been tried, without the slightest benefit. Amongst others, strychnine was exhibited, till painful twitchings were experienced in the extremities. A scton was inserted in the nucha—baths of various kinds were used—but all to no purpose.

He came to London, from a great distance, to consult Sir Astley Cooper and Dr. Johnson. A most patient investigation, separately and in consultation, was had, and the joint opinion of the two consultants was—that some organic lesion existed in the spinal column—perhaps in the posterior part of the brain. The precise nature of this lesion, the consultants could not determine. It might be ramollissement—serous effusion within the membranes—or other disease not known. The prognosis was very unfavourable. The remedies were recommended without much hope of cure. They consisted chiefly in counter-irritation to the spine—small doses of the oxymuriate of mercury—and the daily use of the catheter.

Medical Statistics.

Statistical facts in medicine are beginning to assume the importance due to accurate generalizations. They are not yet sufficiently extensive or correct to enable us to ground any positive opinions on the data that they furnish, but already they have dispelled some long-prevailing errors, and established some important laws. We will throw together some observations upon the comparative mortality of males and females, of the married and the unmarried, that have lately appeared in the contemporary journals.

The first paper to which we shall allude is contained in the American Journal of the Medical Sciences, for November 1835. It relates to the comparative mortality of males and females under the age of puberty, and to the actual causes of the difference that obtains.

1. *Observations upon the Mortality in Philadelphia under the Age of Puberty, shewing the excessive Proportion of the Male over the Female Deaths, and the particular Sources from whence it proceeds.* By G. Emerson, M.D.

It appears, from the returns made to the Board of Health of Philadelphia, that during the ten years included between 1821 and 1830, 64,642 children were born there. The excess of males over females was 2,496, or 7½ per cent. The census of 1830 shewed that, by the fifth year of childhood, the excess was reduced to 5 per cent.; and, by the tenth year to 1 per cent.; while, between the ages of ten and fifteen, the females are found to exceed the males by about 8 per cent.; and, beween fifteen and twenty, by 7.3 per cent.

These curious facts are more or less in accordance with what has been observed in other countries. In Europe, as in America, and probably throughout the world, more males than females are born, yet, after the lapse of a certain period, more females than males survive.

Many conjectures respecting the causes of this see-saw of births and deaths, have been hazarded by statistic writers. But conjectures are idle in determining questions which admit of an appeal to positive facts. Dr. Emerson, discarding speculation, has investigated the bills of mortality, for the real causes of the deaths of males, and the special maladies which are most destructive to either sex in early years. The result of his investigations is contained in three Tables. In the first, we are presented with:—The mortality under the twentieth year, from the most frequent sources, during the years 1832, 1833, and 1834, with the numbers of each sex from each disease, and the ratio in which the deaths of the one exceed those of the other sex.

TABLE I.

DISEASES.	Males.	Females.	Excess. M.	Excess. F.	Ratio of Excess.
Consumption	153	185		32	17.3 p. ct.
Convulsions	433	357	76		17.5
Bowel complaints of all kinds, (excepting Cholera Maligna)	699	597	101		14.5
Small-pox	133	114	19		14.3
Scarlet Fever	216	220		4	1.8
Croup	157	120	37		23.5
Hooping Cough	78	80		2	2.5
Bronchitis	114	84	30		26.3
Inflammation of the Brain	101	67	34		33.6
of the Lungs	190	151	39		20.5
of the Bowels	134	98	36		26.8
Fevers of all kinds, (Scarlet excepted)	185	141	44		23.7
Dropsy, (general)	42	35	7		16.6
of the Head	288	258	30		10.4
of the Chest	18	26		8	30.07
Casualties	15	8	7		46.6
Debility and Decay	251	197	54		21.5
Atrophy	65	38	27		41.5
Teething	17	16	1		5.8
Burns and Scalds	26	35		9	25.7
	3315	2827	542	55	
	2827		55		
Total mortality of both sexes from the above diseases	6142		487		

The male **mortality exceeds the female** in the **ratio of 7.94 per cent.** The diseases **which seem particularly** fatal to the **males, are**—

Inflammation of the brain, inflammation of the bowels, bronchitis, croup, inflammation of the lungs, fevers of all kinds, (except **scarlet,**) **convulsions, general dropsy, dropsy of the head,** small-pox.

To these **sources of mortality** may be added those **under the head of casualties**, with others vaguely designated debility, decay, &c.

The few cases in which the deaths of females predominate, are under the following heads :—

Consumption, dropsy of the chest, scarlet fever, burns and scalds, hooping cough.

To shew that the same causes operate with tolerable equality in different years, Dr. Emerson adds the second Table.

TABLE II.

Infantile Mortality in Philadelphia in the Years 1832, 1833, *and* 1834, *from the most predominant Causes, with the Numbers of each Sex for the different Years.*

DISEASES.	1832.		1833.		1834.	
	Males.	Females.	Males.	Females.	Males.	Females.
Consumption	58	74	54	50	41	61
Convulsions	160	147	130	96	143	114
Bowel complaints, (Cholera Maligna excepted)	299	235	126	132	267	225
Diarrhœa alone	60	53	21	25	33	40
Small-pox	8	5	56	52	69	57
Scarlet Fever	150	147	30	31	36	42
Croup	60	47	50	41	47	32
Hooping Cough	26	32	26	26	26	22
Bronchitis	40	30	15	11	59	43
Inflammations of all kinds	197	139	128	100	160	132
of the Brain	34	24	22	14	45	29
of the Lungs	83	60	55	35	52	56
of the Bowels	54	32	39	40	41	26
Fevers of all kinds, (Scarlet excepted)	86	72	59	42	40	27
Dropsy, (general)	60	53	7	4	16	12
of the Head	102	78	87	83	99	97
of the Chest	10	12	4	6	4	8
Casualties	5	6	3	2	7	
Debility and Decay	95	70	76	69	80	58
Atrophy			11	6	54	32
Teething	11	3	3	6	3	7
Burns and Scalds	6	10	11	12	9	13

The object of the third Table is different from that of the preceding. It is intended to illustrate the comparative mortalities of various ages under the twentieth year, independently of reference to sex.

TABLE III.

Infantile Deaths in Philadelphia during the Years 1832, 1833, *and* 1834, *from the most Common Sources of Mortality, distributed under the various Periods of Life, from the First to the Twentieth Year.*

DISEASES.	Under 1 year.	From 1 to 2 years.	From 3 to 5.	From 5 to 10.	From 10 to 15.	From 15 to 20
Consumption	74	48	54	32	26	104
Convulsions	550	107	94	24	10	5
Cholera Morbus	1	2	6	9	2	3
Maligna	4	6	37	42	22	25
Infantum	608	266	57	7	2	0
Diarrhœa	115	61	32	16	4	4
Dysentery	25	24	17	15	6	2
Small-pox	82	34	76	30	12	13
Scarlet Fever	33	83	205	100	12	3
Croup	108	63	85	19	2	0
Hooping Cough	81	31	37	8	1	1
Bronchitis	104	39	36	16	0	3
Inflammation of the Brain	51	36	36	20	13	12
of the Lungs	147	82	64	18	7	11
of the Bowels and Stomach	103	37	39	21	12	20
Fevers of all kinds, (Puerperal and Scarlet excepted)	87	44	70	45	39	45
Dropsy, (general)	10	7	21	20	7	12
of the Head	198	166	116	54	9	3
of the Chest	8	4	15	5	6	6
Casualties	1	3	6	4	5	4
Debility and Decay	329	22	19	6	1	4
Atrophy and Marasmus	132	71	32	6	2	3
Teething	20	11	2	0	0	0
Burns and Scalds	6	14	22	12	7	4
	2877	1261	1178	529	200	287
Of other affections	665	199	217	106	57	92
Total from all sources	3542	1460	1395	635	257	379

A glance at this Table supports the deduction which has been already drawn from other sources, that mortality diminishes, and that with tolerable regularity, from the first year to the age of puberty, and then, for a few years, again increases. Further comments are, we think, unnecessary. We hope Dr. Emerson will prosecute his inquiries, and lay the results before the profession, so soon as they are sufficiently accurate and extensive to lead to any generalizations of consequence.

2. *Comparative Mortality of Male and Female Life.*

Mr. Rickman has been publishing some elaborate remarks on this, as indeed on other subjects connected with medical statistics, in the Medical Gazette. We shall notice some of the general results which Mr. Rickman draws, or which may be drawn from the data that he furnishes. Mr. Rickman deserves great credit for the industry he has evinced in collecting materials, and the zeal he has displayed in communicating his

observations and conclusions to the public.

It is not necessary for us to repeat that the longevity of females exceeds that of males. This was first systematically shewn by Keraboon in a treatise published in the year 1742, and founded on the mortality of government annuitants in Holland. It is not then to prove this fact, already fully proven, that Mr. Rickman writes or that we condense his observations. His object is to shew the various degrees of female longevity in the various classes.

He exhibits several tables. In the first are shewn the results of a tontine, established under "the Million Act," in the year 1695; the last of the 1002 annuitants under which died in the year 1783. In the second table are the results of various tontines and other government annuities, current from 1785 to 1825, the rate of mortality for forty years being displayed. In the next table are the Parish Register Returns of the ages of those buried in eighteen years, to the extent of nearly four millions of persons. And finally we have a table of 1800 burials in Carlisle, between the years 1779 and 1787; and one of the Equitable Life Assurance Society, containing the ages at death of 5144 persons in 67 years, that is, from 1762 to 1829. These tables we need not insert, as their principal value must be to those engaged in actual calculations. We therefore proceed to Mr. Rickman's conclusions.

From the accurate investigation of the ages at death of persons in England *of all classes*, for eight or nine years before, as well as after, the year 1821, it appears that the advantage in favour of the life of females amounts to four per cent. But in the classes who purchase government annuities, classes necessarily above the reach of hardship and privations, the advantage of the female is actually as high as thirteen per cent. A remarkable fact. Mr. Rickman observes in reference to this circumstance:—

"That the increase of civilization should have protected the female sex from hardships of all kinds, especially from exposure to inclement weather, and that this advantage added to their habitual estrangement from excesses in diet and exercise, should have lengthened life ten per cent. beyond that of the male sex, is not incredible, nor very surprising; but that this advantage (for long life is but another word for comfortable life) should have been increased to thirteen per cent. by the progressive refinements of the last century, is a fact which nothing but ample experience could have established.

The advantage of the female sex *in the aggregate* is found to be four per cent. in longevity,—a difference sufficiently explainable by their comparative exemption from hard labour and bad weather; and this graduated diminution of advantage, as compared to that of the select classes, leads to a persuasion that no advantage whatever existed in favour of the uncivilized human female.

Physically as well as statistically speaking, an investigation of this question is of some importance; and the Parish Register Returns of the ages of the buried, may throw some light upon it. I ask your attention, therefore, to the fact, that although the females are double the number of males alive at 100 years of age (129 to 60 in the year 1821), yet the deaths of the females during the next ten years of life are in such proportion, that at the age of 111 the sexes are equal in number, viz. nine of each sex exceeded that age in eighteen years (1813-1830); and beyond that age the females died earlier than the males; so that the two last survivors were a female, who died at 120, and a male, who died at 124 years of age."

Mr. Rickman presents in the Gazette several tables illustrative of the increase and decrease of mortality, at particular years, at decennary periods, and in the two sexes. But as the laborious nature of the calculations is heightened by the obscurity of Mr. Rickman's style, not one medical reader out of six would be otherwise than mortally puzzled, at hunting the meaning of the zealous and amiable dealer in deaths. Leaving many tables and some most formidable diagrams to actuaries, we must content

ourselves with picking out a fact or a conclusion here and there, for our edification or amusement.

3. *Increased Value of Life in this Country.*

The increase of the value of life in this country has been remarkable. We are the most long-lived (so far as calculations can enable us to ascertain any fact of the kind) of any modern or ancient people. Nay the whole mass of the people now live much longer than its higher classes did in the seventeenth and eighteenth centuries.

"The period," says Mr. Rickman, "of remarkable increase of the duration of life in the mass of the population is evident enough in the *stationary number of burials* during thirty-five years (1780—1815), while marriages increased from 64,000 to 89,000 (39 per cent.), and the population in larger proportion (about 50 per cent.), from the combined effect of increasing longevity, and the usual excess of births as compared to deaths in a thriving community. I do not know that the prolongation of life can arise from any proximate cause other than the increase of bodily health; nor that, from any thing more recondite than increasing plenty and comfort pervading all classes of society."

It is impossible to avoid agreeing with Mr. Rickman in this sentiment. But he indulges in another not quite so unexceptionable. He hints that the war and the war's expenditure were excellent things, and that they have produced an astonishing concentration of national prosperity in our fortunate island. Even Tories will exclaim that this is a little *de trop*, and be-taxed John Bull will growl that it is too bad on the part of the statistician. Of course we do'nt intend to take up this horrible heresy in politics, but we cannot avoid pointing out a circumstance, which appears to militate against our author's notion of the manifold advantages of war. Increased health and longevity in England would seem to have attained their maximum about the year 1818, and have since that period been rather on the decline. Now all contend that whilst the war lasted all went well enough. Then there were high prices and profuse expenditure. But when the war ceased, and the artificial impulse to trade subsided, then unfortunately the bills were to be paid, and then John Bull found out his blunder. If statistics go for any thing in such a matter, they seem to shew that bill and tax paying is fatal work.

4. *Mortality of Doctors.*

We are naturally deeply interested in the question—are we longer or shorter-lived than other classes of the community? There is necessarily much difficulty in ascertaining this point. No distinct records of the births and deaths of doctors are extant; and those who arrive at conclusions on the subject must take for data the lives of physicians and surgeons of eminence. But such data are very likely to prove erroneous. For, in our profession, those who attain eminence are probably longer-lived than the bulk of their brethren.

However this may be, Professor Casper, of Berlin affirms that the medical practitioners of Germany are shorter-lived than the members of other professions. M. Du Bois, has arrived at the opposite conclusion. Of 850 medical practitioners, he ascertained that 7 died between 20 and 30 years of age; 57 between 30 and 40; 83 between 40 and 50; 136 between 50 and 60; 202 between 60 and 70; 213 between 70 and 80; 116 between 80 and 90; 31 between 90 and 100; and 4 between 100 and 106. In fact, 365 of the 850 attained to 70 and upwards, which even exceeds the proportion allotted to the long-lived theologians, of whom, according to Casper, 42 per cent. attain the age of 70." The materiel of these statements is taken from Eloy's Dictionnaire Historique.

The anxieties of the medical practitioner, his midnight watchings, and the contaminated atmosphere he often breathes, must be sources of disease and of mortality. But then, on the other hand, he has one great source of

safety open to him, which must tend to render the balance between him and his patients even—he takes monstrous little physic. Whatever may be the real state of the case, one practical rule is quite clear—we must all try to live as long as we can, were it only for the honour of the profession.

5. *Comparative Mortality of the Married and Unmarried.*

Dr. Casper of Berlin, himself, we suppose, a married man, has published an Essay to prove that the married are much longer-lived than the single are. He asserts that, in the case of females, the mean duration of life for the married woman of 25, is above 36 years; while for the unmarried it is 30½. At 30, there is a difference of four years in favour of the married; at 35, two years, and so on. With respect to men, he asserts from Deparcieux's and the Amsterdam tables, that the mortality of those from 30 to 45 years of age is 27 per cent. for the unmarried, while it is but 18 for the married; and that for 41 batchelors who attain the age of 40, there are 78 married men. The difference becomes still more striking as age advances: at the age of 60, there are but 22 unmarried men alive for 48 married; at 70, eleven bachelors for twenty-seven married men; and at 80, for the three bachelors who may chance to be alive, there are nine benedicts. The same proportion very nearly holds good with respect to the female sex; seventy-two married women, for example, attain the age of 45, while only fifty-two unmarried reach the same term of life. M. Casper, in conclusion, considers the point as now incontestibly settled, that, in both sexes, marriage is conducive to longevity.

Mr. Rickman has very properly and ably exposed this libel on batchelors and maids. He has shewn, satisfactorily that no material difference is appreciable in their respective longevities. The whole of M. Casper's conclusions are based in miscalculation and error. So let our younger readers take heart. At the same time, practical experience convinces us that, in the female sex, many diseases result from the inability to obey the dictates of nature. Who does not every day witness the thousand forms of hysteria with its many consequences, in unmarried women. And can any one believe that this is not prejudicial to longevity and health. The statisticians may, from circumstances, be unable to determine the numerical differences in the deaths of married and unmarried females, but the surgeon and physician who see human nature in detail, cannot shut their eyes to the obvious fact—that whether the unmarried can be proved to be as long-lived as the married or not, they are certainly subject to more miserable maladies, and their health is impaired, if their existence is not shortened.

With males the question is widely different. Fortunately or unfortunately for themselves, they are not restrained from sexual gratifications, like the weaker sex. Marriage then, in their case, cannot be sexually very important, and its influence must be exerted on their general habits and feelings.

6. *Statistics of Factories.*

Mr. Rickman assures us that he never could discover "any fact which was likely to place the health of the manufacturing population below that of other occupations." The expression, like the opinion, is loose. If Mr. Rickman means to say that, cæteris paribus, confinement for a great many hours in the day to the interior of a factory—exposure (as in many instances there is) to a very heated, a foul, or a dusty atmosphere—and a residence in the crowded lanes of a city, are circumstances no more likely to impair health and curtail life, than the avocations of the husbandman, or even the mechanic trades not exercised in the manner we have mentioned, we can only say that we marvel at what the science of statistics tends to. Mr. Rickman justly observes that longevity is only a term for health. We presume that the usual signs of the latter are recognizable by the medical man. Who, then, that sees the white-faced lean mechanic and the ruddy and robust ploughman, can

doubt on which side *health* inclines. We are far from joining in the tumultuary cry against factory labour, but we cannot shut our eyes to the fact, that the great mass of the medical evidence pointed to its general unhealthiness. Some thought this greater, some less; but all, we believe, who have examined the question, have agreed that such labour is in the main unhealthy. It would be paradoxical in the extreme to assert that what injured the health would prolong the life. We recommend Mr. Rickman to look at the work of Mr. Thackrah, on the diseases of the manufacturing part of the people.

PERIOSTITIS OF THE ORBIT.*

Mr. Hamilton, an Irish surgeon, has related a case of periostitis of the orbit, which is practically, well worthy of attention. The particulars of the case are these.

Case. "Mary Falkner, æt. 33, florid complexion, married, and has had three children; the two first alive and healthy, the last a miscarriage, at seven months, came to me at the South Eastern Dispensary, complaining of great pain in the left eye, and side of the head, with impaired vision. A considerable protrusion of the eye-ball was at once observable; the eyelids, especially the upper, were swollen and puffy looking, filling up the usual depression beneath the eye-brow, of a dull red colour, streaked with veins. The eye-ball presented no marks of inflammation, a few tortuous veins being alone seen at its upper and inner part. The iris was of a greenish hue; the pupil natural as to size, but not shape, being oval from side to side, and at the upper and back part a bright green spot, of irregular shape and metallic lustre, was very distinct. The pain complained of was most intense, referred to the eye-ball, but darting into the head, the whole left side of which was affected; worse at night, and depriving her of sleep. It was aggravated by the least motion of the body or eye, and by lying on that side. There is also a distressing feeling of sand in the eye, probably produced by the friction of the tense eye-lids over the protruded ball. Sight is much impaired, objects appearing misty and indistinct, and on looking down double, muscæ volitantes are constantly before the eye. She is subject to giddiness and lightness of the head; pulse quick and full; tongue furred.

Three months ago she miscarried, and supposes she got cold; the eye became painful, and the eyelids red and swollen. Since then the pain has gradually increased, and vision equally diminished."

Mr. Hamilton was inclined, from the metallic lustre at the bottom of the eye, to consider the case one of incipient fungus hæmatodes. But the apparent health of the patient, and the continuance of vision, led him to doubt the correctness of this opinion. Not being able to detect the presence either of an abscess or a tumor in the orbit, he treated the case as one of an inflammatory nature, by leeches, cupping, blisters, and purgatives. But as the symptoms grew worse, he sent the woman into the Meath Hospital. Her state at that time is thus described.

"The prominence of the eye was now so much increased, that it had the appearance of being larger than the other, and the eyelids could not be completely closed; the protrusion was in the direction downwards and outwards. The pupil, dilated a few days before by the extract of Belladonna, has never since returned to its natural size, but now appears prevented from closing by the lens being pushed against it; it had still the same oval form; the lower edge of the iris was turned in; the metallic spot was much more forward, and now seemed to occupy the whole of the pupil, giving it a greenish and rather opaque look; a small, brown, waving line, like a vessel, was seen crossing it. She got no relief from the pain night or day, and though mitigated for a short time, by leeching, it

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soon returned worse than ever; the stomach, too, became so irritable that nothing would stay on it, and the vision was reduced to distinguishing dark objects between her and the light. Though the irritability of stomach was allayed by the application of a blister, the other symptoms became worse, in spite of a variety of treatment, and she left the hospital hopeless of getting any relief."

The general impression on the minds of the surgeons of the hospital, was that of the disease being malignant; and, but for the deep-seated pain in the head, the eye would probably have been extirpated.

About a week after the dismissal of the patient from the hospital, Mr. Hamilton discovered that, on pressing hard on the orbit, its whole upper and inner part was extremely tender. It struck him that the disease was periostitis. On questioning the woman closely, she admitted that she had been disordered by her husband eight years previously, and had taken mercury; that shortly afterwards an eruption, with what seemed to have been iritis, shewed itself; and that sore throat followed, with occasional pains in the bones for the last few years.

Mr. Hamilton now put her on calomel and opium, with the decoction of sarsaparilla. At the end of six weeks' salivation, she had lost all pain, and regained her health and spirits; the eye had nearly returned into its proper place in the orbit, the swelling had disappeared from the lids, and vision was sensibly improved. Some months afterwards, when Mr. Hamilton met her, there was no difference in the appearance of the eyes, the sight, though still misty, was otherwise tolerably good, and no return of the pain had taken place.

Mr. Hamilton indulges in many remarks, which do not seem to require any notice. The case itself tells its own story, not an uninstructive one. We cannot forbear expressing some surprise, that a suspicion of the nature of the case, or at all events a trial of the appropriate remedies should have happened at so late a period. Tenderness on pressure is a physical sign, readily appreciable by a manual examination, whilst the unnatural protrusion of the eye, would naturally lead to such an investigation. Independently, however, of any such physical evidence of inflammation of the bone or periosteum, the mere existence of severe deep-seated pain, connected apparently with some inflammatory affection of the tissues, would induce the majority of practical surgeons or physicians to prescribe calomel and opium. The symptom is one, to which, as a symptom, that remedial combination is peculiarly adapted. The particulars of the case are calculated to give an useful hint to its readers.

On the Use of the Cochlea in the Organ of Hearing.

We need scarcely observe that the functions of the various parts that compose the internal ear in man, are imperfectly understood. That so complicated an apparatus should be essential to the perfect sense, is consistent with analogy and reason. But physical science has not hitherto informed us, what part is played by each component section of the mechanism, nor what is the individual office of the cochlea, the semicircular canals, and so forth.

Weber, a physiologist of no mean rank, has laboured to prove that the office of the cochlea, is to appreciate those sounds which are transmitted through the cranium as a solid. The opinions and the reasoning of Weber on this subject are presented to the English public by Dr. Graves, the able Editor of our Dublin contemporary. We shall introduce such portions of his paper in that Journal, as will put our readers in possession of the main points which are urged in favour of the hypothesis in question.

"It is evident," says Weber, "that the propagation of sound to the internal ear, takes place not merely through the *meatus auditorius externus*, but also through the *bones of the cranium*; by the former we receive notice of sounds from without, by the latter, we more

readily hear our own voice. The vibrations produced by our own voice are indeed also heard by the route of the external ear, but they are conveyed with greater distinctness through the medium of the bones of the skull. Thus, if you stop both ears firmly with the fingers, so far is your voice from being rendered inaudible, that you hear it more distinctly and louder than before. If now we remove the finger from one ear, immediately we find that the sound of our voice appears stronger in the other. *I shall now endeavour to prove that sounds propagated by and conveyed through the bones of the head, are heard chiefly by means of the cochlea, whereas sounds coming from without by way of the meatus auditorius externus, are not so readily received by the cochlea,* as by the route of the vestibule and the semicircular canals."

Weber observes that in almost all animals, the vibrations on which sound depends are communicated to the extremities of the acoustic nerve, by the two-fold means of a vibrating solid and a vibrating fluid. Why it should be so, is not at present clearly understood, but M. Weber asserts that it is the fact with regard to the greater number of animals.

Sounds lose comparatively little of their force by propagation through an uniform medium; but the contrary is the case when they pass from one medium to another, as from a solid to a fluid, or from a fluid to a solid. Thus sounds transmitted through water may be heard at great distances, while the head is under water; but they become inaudible the instant that the head emerges above its surface.

"Now it is found," continues Weber, "that solid bodies communicate their vibrations to fluids, with a facility proportioned to their extent of surface, and that solids receive vibrations from aeriform media more easily when the solid is shaped in the form of a membrane. A tense cord does not easily communicate its vibrations to the air unless it be fixed to some flat body, which, being of a like nature solid, receives the vibrations of the string without difficulty or loss, and propagates them to the air through the medium of its own extensive surface. It is an observation of these phenomena which has led to the adoption of sounding boards in those musical instruments, when the vibrations causing sound proceed from strings, as in case of the violin, the piano, and the harp, whereas sounding boards are not required in the various species of wind instruments. The reason of this difference is sufficiently obvious, in the one case a solid with an extensive surface must be brought into connexion with the vibrating string in order to diffuse its vibrations more energetically through the air, whereas in wind instruments, the vibrations being derived from the air itself, no such provision is necessary."

The two preceding facts may be considered as the premises of Weber's argument. The conclusions follow thus.

The sonorous vibrations of the air in the mouth pass to the internal ear through the medium of the cranial bones. They impinge by preference on that portion of the acoustic nerve which is distributed upon the cochlea, *because* on it the nervous expansion is in intimate relation with its walls, which are themselves connected with the cranial bones. But the acoustic nerve where distributed through the vestibule and semi-circular canals is not so favourably circumstanced for receiving the vibration of the cranial bones, for here the nervous expansion is separated from the bony parietes either by means of a liquid secretion or of a loose cellular membrane. In accordance then with the law that sound is transmitted with most facility when the medium is not changed, M. Weber supposes that the acoustic nerve in close connexion with the bony cochlea, is more readily affected by vibrations of the cranial bones: than in the vestibule or semicircular canals, where another medium separates it from the bone.

With the following remarks, which we cannot materially abridge, we conclude.

"The preceding observations," concludes Weber, "render it sufficiently apparent, that the membranaceous ves-

tibule and membranaceous semicircular canals, differ in structure from the osseous vestibule and the osseous semicircular canals, in such a manner, that vibrations travel through the bones of the cranium with more facility to the cochlea and round sac, than they do to the membranaceous portions of the internal ear.

The next question is, whether the sonorous vibrations that are derived from the external air and proceed through the meatus externus to the ear, are propagated with greater facility and strength to the nerve of the vestibule than to the nerve of the cochlea. In the first place, it is evident that the vestibule and the semicircular canals directly connected with it, must receive a stronger impulse from the aerial vibrations than the cochlea, for the former have a solid communication by means of the chain of ossicula with the membrana tympani, whose vibrations are consequently imparted at once to the membrane of the fenestra ovalis, whereas no such direct communication exists between the membrana tympani, and the fenestra rotunda. The membranes of the semicircular canals and the vestibule too, seem to be more easily set in motion by the fluid which invests and surrounds them, than is the case with the lamina spiralis of the cochlea. The latter is, nevertheless, furnished with provisions calculated to enable it to receive impulses from the external air also; for the fenestra rotunda, being closed by a membrane, must impart the vibrations that occur in the cavity of the tympanum, while another opening, by forming a communication with the vestibule itself, must place the cochlea in connexion with the latter, in such a manner that the vibrations which the chain of ossicula have imparted to the fluid of the vestibule, must through that fluid be at once propagated to the cochlea.

I have next to prove the assertion which I made at the commencement, viz. that nature has so constructed the ear in man, and various other animals, as to make a provision for the reception of the sonorous vibrations in a two-fold manner, by means of the acoustic nerve, which is so disposed in the internal ear as to present, for receiving these vibrations, a double surface of contact; the one consisting of a soft, pultaceous, nervous expansion, surrounded by a fluid, the other formed of a reticulated net-work of extremely minute, but firm, nervous, ramifications. The former receive the sonorous vibrations through the medium of a fluid, the latter of a solid. In man the cochlea is the portion of the organ where the firmer extremities of the acoustic nerve are disposed for this purpose. Fishes and amphibious animals have no cochlea, but they have an arrangement which answers the same purpose; for in osseous fishes, we find that the membranaceous labyrinth contains three white little stony bodies, of great specific gravity, very hard, and much resembling vitrified argillaceous clay; two of these are enclosed with a sac full of fluid, adjoining the vestibule, and lodged in the basilar portion of the occipital bone; these lapilli are furnished with fine nervous filaments, fastened to rough depressions and elevations on their surface; thus vibrations are imparted from the lapilli to the acoustic nerves; the third lapillus is situated in the anterior portion of the membranaceous vestibule, and receives no nervous filaments. It has, however, another mode of communicating with the acoustic nerve, for it lies against a very large branch of that nerve where it expands on the membrane of the vestibule, and thus compresses this nerve between itself and the cranium. In cartilaginous fishes and in amphibious animals, in the place of these lapilli, we find certain little bodies consisting either of concrete gelatine or of a chalky pultaceous matter, and to which both Scarpa and myself have traced ramifications of the acoustic nerve; neither is the *lamina spiralis* of the cochlea in man formed without reason of two structures, an osseous, and a cartilagino-coriaceous tissue; for as the same nervous branches pass from the osseous to the cartilaginous portion of the *lamina spiralis*, it is natural to conclude that receiving sonorous impulses from both, these impulses are communicated by means of a different

mechanism in the two cases. This idea is confirmed by an examination of the calcareous fragments found in the labyrinth of Rays, and which are composed of two portions; one pellucid and resembling a tremulous jelly, the other white and chalky, seem to discharge the same function in these animals, that the cochlea does in man. These fragments are so divided, that their gelatinous and chalky portions lie in contact by means of extensive smooth surfaces. Nature has so disposed the extremities of the auditory nerves in the semicircular canals of all animals, that these extremities receive the sonorous impulses directly from a fluid. This is very plain, even in man, where the dilatations termed ampullæ, and which correspond with a similar enlargement of the nerve, are both filled with and surrounded by a fluid. In fishes it is still more evident, for in Rays, a nervous filament can be traced to each ampulla, which it enters and forms within a crescent-like septum."

We fear that ingenious as the preceding reasoning must be owned to be, it is still extremely speculative. When we reflect on the facility with which sonorous vibrations are communicated through the whole body, composed as it is of media differing much more in nature and extent, than the nervous expansions on the cochlea and the semicircular canals can do, we are almost involuntarily led to pause before we yield implicit confidence to M. Weber's conclusions. Unfortunately, in the case of the internal ear, decisive experiments cannot be performed, and the observation of pathological changes in connexion with alterations of the functions, is attended with nearly equal difficulty. The amount of confidence extended to M. Weber's opinions will vary with the turn of mind of the individual who peruses them. One man yields assent to the evidence of probabilities, with much less difficulty than another. Whatever may be the actual truth of M. Weber's supposition, it is certain that it is ingenious, and possessed of plausibility. We think Dr. Graves entitled to many thanks, for bringing this as well as other Continental papers before the profession in this country. This is not the first time, nor, we are sure, will it be the last, that we have had or shall have occasion to express our sense of the zeal and the talents of that gentleman.

PROFESSOR HARRISON'S ACCOUNT OF CRYSTALS OBSERVED ON THE PERITONEUM OF THE HUMAN SUBJECT.

Mr. or, rather, Dr. Harrison, who is well known as the author of an excellent work on the anatomy of the arteries of the human body, has communicated to our Dublin contempory*—An account of some crystals, apparently of the ammonio-magnesian phosphate, which he has observed on several occasions on the peritoneum of the human subject. He is not aware, nor are we, of any published account of these crystals prior to his own.

"It is now," he says, "some time since my attention was first accidentally directed to these, by the sensation which they gave to my hand, when removing some of the viscera of the abdomen, in the course of general dissection; I have since met with several examples, in all I should think about five or six, and in these the greatest similarity prevailed. The crystals, though extremely small, are very distinct, they are prismatic and exhibit clear and brilliant facets; before removal from the membrane they appear semi-transparent, not very unlike the colour of the peritonæum itself, hence they are usually detected by the touch rather than by the sight. They are principally to be found in the lower regions of the abdomen: in the first case I met they were in great abundance on the cæcal and iliac portions of the peritonæum; I have since found them in both iliac regions, as also in the inguinal fossæ, also along the course of the colon and the forepart of the rectum, but not on the bladder; I have seen a few on the mesentery, and on the terminating convolutions of the ileum intestine; but in all the examples I

* No. 26.

have met, they were most abundant in the iliac regions. I have not observed any on the stomach, liver, spleen, or duodenum, or on any part of the peritoneum in the upper regions of the abdomen; in the lower part of the cavity they were not confined to the visceral, though certainly they were more abundant on it than on the parietal portion of the membrane."

Dr. Harrison cannot consider these crystals as actually a morbid product, nor has he found them in connexion with diseased structure. They have almost always occurred in the bodies of females, emaciated, and advanced in years. As the crystals occur where no liquid effusion is present, they cannot be considered a mere crystalline deposition from it. The crystals, too, were not loose and unattached, so as to admit of being rubbed off, but, on the contrary, they were set very close together, and were intimately connected to the membrane by a very fine but still a resisting film, or a sort of albuminous pellicle, which was continued from the peritonæum over the base of the crystal, on which it was imperceptibly lost. In order to detach any of them it was necessary to scrape them off with the knife; on their removal, however, no orifices were observable in the membrane, and the latter appeared in a state of integrity, and free from any abrasion. When these crystals were removed and washed, they became perfectly transparent, their prismatic form and polished surfaces were then also very apparent.

Dr. Harrison collected some, and sent them to Dr. Apjohn for analysis. He found that they were composed of phosphoric acid, ammonia, and magnesia. What the causes of their deposition may be, or what are even the attendant circumstances, we are unable to determine. Dr. Harrison has never seen them in the pleuræ or the pericardium.

"I once, and only once, met with a very slight trace of the same formation on that portion of the arachnoid membrane which covers in a very loose manner the cerebral protuberance or pons Variolii, but the crystals were not in sufficient quantity to enable me to institute an accurate comparison. Finally, I may add that, a short time since, when examining the head of a child about seven years of age who had died of hydrocephalus, and in which the arachnoid membrane on the inferior surface of the medulla oblongata was inflamed and thickened from tubercular deposit, I detected a small patch of the membrane to be in a very rough condition; this, on close examination, I perceived was partly owing to the presence of very distinct small short crystals of a brownish colour and which were intimately adherent to this diseased and thickened membrane; the quantity of these, however, was so very small, and the parts were so much disturbed and injured by the examination, that I was not able to institute any more accurate investigation as to their nature and properties; from their general appearance, however, as well as from all the concomitant circumstances, I should consider these as a totally different product from that which I have first described as found in the peritonæum."

Maltreatment of a Fractured Leg in Lafayette. By Boyer and Deschamp.

The following anecdote of execrably bad surgery on the part of Boyer and Deschamp, and of most surprising patience on the part of General Lafayette, is told by Jules Cloquet, and extracted from his work by our Dublin contemporary.

"During his last illness, Lafayette related to us more than once the particulars of the treatment he underwent in 1803, for the fracture of the thigh, caused by falling from a height; Deschamp and Boyer, whose memories I respect, and under whose care I was educated, was called in, and enclosed the limb in a machine constructed so as to maintain it in a state of continual extension. Lafayette having promised his surgical friends, that he would patiently endure the pain and inconvenience necessarily attendant on the treatment, did not give utterance to a single complaint, and did not betray

the least sign of being in pain for the whole of the twenty days which elapsed before the apparatus was for the first time removed; when it was removed, however, his surgical friends could not conceal their consternation; Deschamps turned pale, and Boyer appeared thunderstruck. The bandages of the upper portion of the apparatus had, by their pressure, cut deeply into the flesh, and exposed the femoral artery, while the skin of the dorsum of the foot was rendered gangrenous by the inferior bandages, so as to lay bare the extensor tendons of the toes. More than five weeks were required to heal these wounds, and when the cure was completed, an almost complete anchylosis of the hip joint had taken place, so that he was lamed for life."

Well might Deschamp turn pale, and Boyer be thunderstruck, for their's was no mean carelessness. This is just the case for Mr. Radley. It would prove to demonstration the mischiefs of the practice of extension. Fortunately, *such* extension is not common.

EXCISION OF THE CYST OF A STRANGULATED UMBILICAL HERNIA. SUPPOSED RADICAL CURE.

The following case is contained in our valuable transatlantic contemporary—the American Journal of the Medical Sciences.* The reporter of the case is Dr. Heustis, of Mobile, who performed the operation.

Case. On the night of the 7th of June, 1829, Dr. H. was summoned to a female slave. The woman was apparently dying; in extreme pain, with an abdomen immensely swollen; pulse feeble and intermitting; body cold, and covered with a copious exudation of clammy sweat. The protrusion of the umbilicus was about the size of one's fist, and had been increasing for two days. A physician had been called in at an early period, who had in vain attempted the reduction by the use of all the ordinary means, such as bleeding, warm bath, taxis, &c. He had, however, left her, with the intention of returning in the morning prepared for the operation. But in the meantime the patient had continued to grow worse. The abdomen was tense, and very painful to the touch, there was frequent vomiting, and there had been no motion from the bowels since the commencement of the symptoms of strangulation.

"Finding that there was no time for delay, I proceeded to the operation by candle-light. The integuments were carefully dissected from the distended sac, and the point of protrusion arrived at, almost entirely obliterated, and not sufficiently large to admit the little finger. The sac was now divided, and the opening enlarged with the blunt-pointed bistoury, so as to admit the protruded portion of the bowel, which was dark-coloured and almost gangrenous. There was still, however, a considerable volume of hernial sac, consisting of the protruded and distended peritoneum, much thickened from former and repeated attacks of hernia. To leave it would be exposing the woman to future returns of her habitual infirmity; whereas, by removing it, a radical cure would, in all probability, be effected. I accordingly removed it entirely with the scalpel, close to the point of protrusion. No sooner were the dressings applied than a free discharge from the bowels took place, to the great relief of the patient.

The cold perspiration had now disappeared; the pulse had acquired more firmness, and the tension, pain, and hardness of the abdomen diminished. In the morning the abdominal distention had subsided, and the woman was in a fair way of doing well. I left her, giving the necessary directions for her future treatment, and saw her no more. Some time subsequently, I learnt from her master, that her recovery was speedy, and that she had no more returns of the complaint, a radical cure having been effected by the operation."

The preceding description might be clearer. It is certain that the hernial sac was removed, and that no bad con-

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* No. XXXII. August, 1835.

sequences followed. But it is not certain that a radical cure was effected, nor that the practice would, in similar circumstances, be advantageously, or even safely imitated.

On the Sounds of Substernal Aneurysms. By Dr. Henderson.*

Dr. Henderson makes an observation, which now hardly needs to be supported: that although an exact diagnosis of intractable diseases may neither directly contribute to their alleviation or their cure, still it is useful to the physiologist and the physician. The fact is, that a precise knowledge of the symptoms and signs of any one incurable malady, presupposes, in some degree, a precise acquaintance with the symptoms and signs of other diseases, which may or may not be susceptible of relief. If we recognize a certain malady present, we are enabled to ascertain its absence, for the knowledge of the characters of one disease is, pro tanto, the power not only of distinguishing it from others, but also of distinguishing others from it. They who exclaim against exact diagnosis are usually shallow persons, who are deficient either in the ability or the industry required for the successful analysis of symptoms. But to resume.

The nature of Dr. Henderson's communication is briefly and satisfactorily stated by himself. His remarks have been derived chiefly from cases which were of a sufficiently obvious nature, and which were studied with the purpose of acquiring means to detect the more obscure instances of the disease by a consideration of the anatomy and signs of the more apparent. In order that our readers may understand the signs of substernal aneurysms, it is necessary that they should become acquainted with the varieties in those aneurysms, to which Dr. Henderson attaches some importance.

"The signs," he says, "of substernal aneurism are subject to variety from the influence of form, position, and the presence or absence of *coagula*. That part of the *aorta* which includes the arch and the ascending portion of the vessel is liable to be affected differently from the other arteries of the body, by acquiring a large size from nearly uniform dilatation, and is also subject, like them, to the sacculated form, resulting from more or less rupture of the inner and middle coats. The external coat and the membranous substances that invest it may be distended to a very large size, while the communication betwixt the cavity of the aneurism and the *aorta* may not equal half an inch in diameter. It is, indeed, remarkable through what a small aperture a fluid power may be directed capable of causing enormous distention of the outer coat. Scarpa quotes from Palletta a case of aneurism of the thoracic *aorta* which had attained a great size, while the opening that led from the vessel was incapable of admitting a substance larger than a pea. The communication is, however, in the majority of cases, much larger, so large, indeed, in some, that the sac may have a diameter at its mouth equal to that at any other point of its extent. The relative size of this opening seems to have a material influence on the sounds emitted by the aneurism.

Aneurismal sacs may, or may not, contain *coagula*. When present, these may be arranged in concentric laminæ within the aneurism, so as to present no obstacle to the free passage of the blood through the contiguous part of the vessel, or they may project into the vessel, and oppose themselves to its current, a remarkable instance of which is afforded by Case I. Sacculated aneurisms of considerable size are not commonly altogether void of *coagula*. One of this kind I had an opportunity of witnessing, in which the sac was as large as an infant's head, and the opening leading into it but two inches in diameter; yet it contained no deposition of fibrine. It had produced death by the discharge of its fluid contents through a small slit into the cavity of the right *pleura*."

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* Edinb. Med. and Surg. Journal, No. 127.

Although the ascending aorta may yield in any part of its circumference, yet the direction of the aneurysm is generally towards the right side.

A substernal aneurysm may give rise to two successive sounds, corresponding in point of time to those of the heart, or may occasion but one sound, synchronous with that of the ventricles. These are to be understood as originating in the aneurysm, and require for their production that it should be altogether or nearly without *coagula*. The sounds which are heard over the aneurysm, when filled with coagulated fibrine, are different both in their nature and in their origin; they are transmitted by, but do not originate in, the aneurysm. Dr. Henderson is disposed to believe, from his own experience, that when two sounds originate in the aneurysm, they always possess more or less of the rasping noise, but when one only has its rise in the tumor, it may have either this rasping sound, or may be pure, and, in some measure, similar to the ventricular sound in health. Dr. Henderson enters into many considerations, with respect to what the sounds might or might not depend on; but, as none but profound auscultators can follow him, and as they are too much founded on supposition to be satisfactory, we must refer our readers to our contemporary for their perusal. The following observations on the signs of enlargement of the calibre of the arch of the aorta, will probably be more generally understood.

"Of the sounds accompanying general enlargement of the calibre of the ascending *aorta* and arch, little need be added to what has already been said of sacculated aneurisms with a very wide passage leading from the *aorta*. When complicated, as it sometimes is, with disease of the aortic valves, and permanent patency of the aperture surrounded by them, this kind of aneurism may present two rasping sounds along the *sternum*. In order to distinguish this state of disease from the sacculated aneurism, at the orifice of which two rasping sounds are produced peculiar to itself, it will suffice to remember what has already been said regarding the second sound in cases of permanent patency, and that in mere dilatation, the impulse is much less on any part of the *sternum* than immediately above this bone.

The presence of a hoarse rasping sound in the carotids is characteristic of the several forms of substernal aneurism which have not been consolidated by *coagula*. It is likewise occasionally met with in these vessels in cases of considerable narrowing at the mouth of the *aorta*, especially when complicated with greatly increased power of the heart. The state of percussion and the absence of preternatural impulse in the course of the *aorta* will enable these cases to be distinguished. The pathological conditions necessary for the production of these sounds in the vessels beyond the aneurism are merely the existence of a considerable expansion beyond a part of much more limited capacity,—conditions which are characteristic both of aneurisms and of the valvular disease referred to. Roughness of the inner surface of the aneurismal dilatation, or of any other part of the apparatus, does not seem to be requisite."

Aneurysms contiguous to the heart, when filled with fibrine, become mere passive instruments for the transmission of the two sounds of the heart itself. Why they should do so must be evident to every one. Cases of this kind cannot be confounded with that very different form of aneurysm in which the sac is still capable of admitting blood at each contraction of the ventricles. In the latter, it is true, there are two sounds, both of which may be free from murmur, but the first is louder than that of the heart, and most likely results, as has been said, from the shock of the sac or its fluid against the *sternum* or ribs, while the second can be accounted for only on the supposition that it is transmitted from the valves. Besides, aneurysms not filled with *coagula* have a much stronger impulse than the others. Yet, in aneurysms *not* consolidated, the second sound is liable to many variations, some of which are not readily accounted for.

On the whole, Dr. Henderson arrives

at the following conclusions, which we subjoin. Our readers may test them in their bed-side experiments.

"1st, That aneurisms of the ascending *aorta* may or may not have sounds originating from themselves.

2d, That when two sounds *originate* in the aneurism they are produced at the opening by which it communicates with the *aorta*, and that only sacculated aneurisms can originate two sounds, and these of a more or less rough character.

3d, That when two pure sounds, *i. e.* sounds free from morbid murmurs or rasping, are heard in the situation of aneurism, one only originates at the tumour, the other being communicated from the sigmoid valves.

4th, That the second sound of the heart is susceptible of increase, and probably of diminution, from diseases of the *aorta* capable of modifying the energy with which the blood recoils upon the sigmoid valves.

5th, That aneurisms near the heart, consolidated by the formation of fibrinous concretions in their interior, transmit the sounds of the heart, and that these sounds diminish on being thus transmitted.

6th, That it is immaterial in the diagnosis of substernal aneurisms, whether the first sound be rough or pure.—See Dublin Journal, vol. V.

7th, That it is equally immaterial in the diagnosis of these aneurisms, whether the second sound be rough or pure; that, if the former, it can be the result only of one of the two following conditions, either of a sacculated aneurism *originating* two sounds, or of permanent patency of the aortic opening.—See Edinburgh Medical and Surgical Journal, No. CXXII.

8th, That it is immaterial in the diagnosis of substernal aneurisms, whether the second sound (if pure) be heard more or less distinctly in the region of the heart, than nearer the seat of the aneurism.—See Bertin, p. 95: Hope, Lond. Med. Gaz. 1829, &c.

9th, That, although certain preternatural sounds at the upper part of the *sternum*, or on the superior part of either side of the chest in front, together with dulness on percussion and morbid impulse at the same places, afford means of detecting the great majority of substernal aneurisms, yet it is possible for an aneurism consolidated by *coagula*, and without external tumour, to exist without our being able to distinguish it from other solid masses, alike capable of conducting the two sounds of the heart, and communicating its impulse."

Case of Recovery from Dislocation and Fracture of the Spine.

Dr. Dorrance, of Amherst, Massachusetts, relates a case of this sort, which possesses some features of practical interest.

Case. About six years ago Amos Marsh, of Sunderland, while working in the woods, was struck by a falling tree, and bent to the ground. Dr. Dorrance saw him soon after his removal to his house. He found paralysis of the lower extremities, and a projection at the eleventh dorsal vertebra, where an angle of forty-five degrees was formed.

"It looked like so easy a thing to make the spine straight, that I could hardly resist the inclination to put it so. And the by-standers were impatient at my hesitation to do it. I supposed there was partial dislocation of the vertebræ, which any attempt at reduction would probably make a perfect one. I knew, too, that dislocation could not take place without fracture of the spinous or transverse process, and that loose spiculæ of bone would very possibly be driven into the spinal marrow, and cause instant death. A consulting physician, who saw the patient some hours after, was anxious to attempt a reduction; and when dissuaded from that, proposed cutting down and removing the broken and probably depressed fragments of bone. It was, however, concluded to trust the patient to nature, using bleeding and low diet to prevent, as far as possible, inflammatory action in the injured part.

Mr. Marsh had for a number of weeks almost perfect paralysis of the lower limbs and of the lower abdominal viscera. Urine was drawn off by the catheter, and the bowels moved by stimulating injections. By degrees, sensibility and mobility returned to the limbs, and the bladder and rectum resumed their functions. In four months the patient walked with crutches, and in six with a staff. In less than a year he resumed his trade, that of a cooper, and he now performs as much labour, sometimes in his shop and sometimes in the field, as most men of his age. There is a stooping of his back, and a sideway motion to his gait. The vertebræ are not in place, though more so than at first, and I believe much more so than art could have placed them."

The event proved, as reasoning might have anticipated, that Dr. Dorrance displayed his judgment in this treatment of the case. In doubtful circumstances, the rule of practice should almost always be—to avoid interference, when the probability of benefit is dubious, and the risk is great. Unsuccessful operations are, as we have often observed, prejudicial to the interests both of humanity and science. They create or confirm the too general doubts in the efficacy of the latter, and they prevent many persons from submitting to operations which would be really successful.

Strongly as the propriety of cutting down upon the vertebral column, and removing the depressed portions of bone, has been advocated by some able surgeons, facts and reasoning are so powerfully opposed to it, that the profession may be said to have decided against it. It is generally admitted now, that the analogy between the fractured spine and fractured cranium is too imperfect, to allow of arguments founded on the issue of treatment in the one case, to be applied with strict propriety to the other.

But occasionally patients exhibit a displacement of the vertebræ after injury, which appears to be remediable by moderate extension. Should such extension be resorted to? This is rather a difficult question, and the answer must depend on the judgment of the surgeon, and, indeed, on the concurrent circumstances in the individual case. We have seen one instance, and heard of another, in which extension seemed to be useful. The case which we saw was that of a boy, admitted into St. George's Hospital many years ago, with apparently fracture of the spine, and projection backwards at an angle, of one or two of the dorsal spinous processes, about the middle of the back. There was paralysis of the parts below the seat of injury. As there was not much pain on pressure, and the youth of the patient was favourable to the attempt, cautious extension of the spine was made. The projection manifestly diminished, and, although we believe that no immediate alteration with regard to the paralysis occurred, yet the patient ultimately did well, and left the hospital, after some months, with a certain degree of power over the inferior limbs. The case of which we heard was received, like the last, into St. George's Hospital. But, in this instance, we believe that the extension was made prior to the admission of the patient, and he also did not die. What the precise state of the paralysed parts was, we cannot now pretend to say. In both cases the extension did no harm, if it did no good; but our impression is, that it seemed to most of those who saw the cases to be really productive of some benefit.

There is an observation on the part of Dr. Dorrance, to which we would direct attention. He remarks that, in the case of his patient, he used bleeding and low diet to prevent, as far as possible, inflammatory action.

Now this is a precaution neither, we conceive, sufficiently insisted on nor practised. Surgeons are too apt to overlook the occurrence of inflammatory action about the membranes or the substance of the spinal marrow, after fracture of the vertebræ. The depressed condition of the patient, the paralysis, the disposition to the occurrence of sloughs of the integuments below the injury, all concur to prevent the surgeon from watching for inflammatory symptoms, or from meeting them, if

they are present, with the same degree of earnestness he exhibits when the cranium has been fractured. Yet the cases of fracture of the spine that have done best within the limits of our own observation, have been those in which small bleedings, cuppings, calomel and opium, and remedies of that description, were employed. Of course, we do not recommend the indiscriminate use of antiphlogistic measures in *every* case of fracture of the spine. All we mean to say is, that surgeons, perhaps, disregard them too much, and that where circumstances justify their adoption, they are both reasonable and useful.

Successful Amputation during the Progress of Traumatic Gangrene.

The occasional propriety of amputating a limb during the progress of traumatic gangrene, is too well established to require much further illustration or enforcement. But, although the operation may, under favourable circumstances, be resorted to, our readers must not suppose that, on the whole, it is a very successful one. We have seen it performed six or seven times, but never once with success. If we were to trust what some of the continental journalists say, we should be led to believe that the operation is a very fortunate one. But this is a little *de trop*. We are sorry to say that amputation for traumatic gangrene is sufficiently unsuccessful in the London Hospitals, to render it advisable to encourage surgeons, by the publication of any authentic instances of a favourable termination. For this reason, then, we notice the succeeding case.

Case. Mr. Eve, Professor of Surgery in the Medical College of Georgia, was summoned on the 1st of January, 1835, to visit a black man, then under the care of Dr. Olive, and Dr. R. Williams. The patient, a stout fellow, 40 years of age, had, a fortnight previously, received among other injuries, a double fracture of both bones of the right leg, one fracture near the ankle, the other just below the knee. The limb was placed in splints, and for a week or ten days it appeared to do well, but mortification then commenced, and progressively extended. On the 1st of January, when Mr. Eve was summoned, the condition of the patient was as follows:—Right foot and leg entirely sphacelated, knee of same side gangrenous, right thigh infiltrated with serum, and under or posterior surface much thickened from position, with *distinct crepitation* over the anterior surface, extending as high as Poupart's ligament. The pulse was small, wiry and feeble, beating about one hundred in the minute; tongue furred, whitish: courage good. Under these circumstances, amputation of the limb near the trochanters was decided on.

"After pressure was made upon the vessels, an incision in a longitudinal direction was made on the anterior face of the thigh, when oily serum and blood flowed out, from which we felt encouraged, and amputation was performed in the ordinary manner, as already described in a preceding number of your Journal. The patient being supported with laudanum, brandy and water, bore the operation much better than was expected. The stump presented a very unfavourable aspect, the skin of very unequal thickness, owing to the deposition and thickening from position, the muscles were very dark, the arteries and the cellular tissue, particularly along the course of the absorbents, blackish, and from the hollow of the divided thigh bone, the medullary substance protruded of a dark purple colour. On examining the parts removed, the knee-joint was found disorganized—matter extending in the cellular tissue above it; and upon removing the projecting medullary substance from the os femoris, which resembled that of the corresponding part of the stump just noticed, *pus* made its appearance."

In a month or six weeks the patient entirely recovered.

The case is put forward by its author not only as an instance of recovery from amputation performed during the

progress of traumatic gangrene, but of success when the knife cuts through parts actually implicated.

PROFESSOR MUELLER'S ACCOUNT OF THE ARTERIES THAT PRODUCE ERECTION OF THE PENIS.*

Professor Mueller, of Berlin, has lately discovered, or, at all events, described the arteries of the penis which produce the phenomenon of its erection. We will present the most essential portions of his statements on the subject.

We need not remind our readers that the penis is almost exclusively supplied from the internal pudic artery. This ultimately splits into two branches, the artery of the corpus cavernosum penis, and the dorsal artery of the penis. The former penetrates the corpus cavernosum at its root, and ramifies within it; the latter, after sending twigs to the fibrous envelope of the penis, its fascia, outer skin, and prepuce, terminates by ramifying in the glans.

"The distribution of the principal branch of the arteria penis was all that was hitherto known of this important vessel: it is in the more minute distribution of its branches through the corpus cavernosum penis that the secret of the cause of erection has remained concealed. It is not a lucky accident, but a systematical arrangement, and investigations proceeding from certain combinations, that have guided me, in this instance, to an important discovery. It is generally thought that the arteria profunda penis, which nourishes the substance of the penis, is at the same time capable of filling the cells of the corpus cavernos. with blood during erection also; that the nutritive blood, as well as that serving for the purpose of erection, proceeds from the fine twigs of the same vessel into the fine (capillary) veins; that it passes inwards from these into the sinuous veins, and again from these to the vena dorsalis penis; and that the state of erection distinguishes itself from the ordinary state of circulation in this organ, partly in the quantity of blood circulating in its vascular net-work, and partly in an impediment offered to the return of the blood through the veins of the penis. The older writers, on the other hand, considered the sinuous veins of the corpora cavernosa to be cells;—imagined that the nutritive blood supplied by the ordinary circulation did not at all reach these cells, or pass through them, but was carried off by appropriate veins; and that still, during the state of erection, the cells of the corpus cavernosum were filled with blood. Both views are, as we shall see, incorrect. The opinion of the old writers is proved to be unfounded, as well by investigations on the dead body as by the vivisections of beasts. In many experiments performed on the living horse, dog, ram, &c., I have observed, that upon making an incision in the corpora cavernosa, these bodies were not, in their unexcited state, much charged with blood, but that blood is contained in their sinuous veins, although certainly in less quantity than in the corpus cavernos. urethræ, which bleeds freely when cut across. Farther, in the majority of human subjects blood is found in the sinuous veins of the corpora cavernosa penis."

M. Mueller, it appears, had long thought that erection did not depend on the arrest of the flow of blood in the dorsal veins of the penis. He had also thought that different branches of the artery of the corpus cavernosum served for the purposes of nutrition and erection. It was "one of the happiest days of his life" when he found this, his conjecture, true, and "the wonderful difference" between the two sets of twigs alluded to is described by the Professor as follows.

I. "*The nourishing Twigs (Rami nutritii Arteriæ profundæ Penis.)*

When an injection of the arteries of the penis is made with size and vermilion, a considerable portion of the injected mass is always forced into the cavities of the corpora cavernosa, as well in the human organ as in that of

* Medical Gazette, Jan. 9, 1836.

the horse and dog. When this mass of injection (of which I am still uncertain as to the means by which it enters into the cellular structure) is washed out, the rami nutritii will become evident. The rami nutritii of the spongy substance (which, since they are upon the walls of the sinuous veins in the interior of the penis, may be also called the vasa vasorum) are found to be as minute as the arteries of any other part: they distribute themselves upon the pillars of the spongy substance, until they become too fine to be perceived by the naked eye. As in the arteries of other parts, they anastomose; and lastly, they form, as in other parts, the capillary net-work which is so difficult to be injected in the penis, owing to the facility with which the injection escapes into the cavities of the corpora cavernosa.

II. *Arteriæ Helicinæ Corporis cavernosi* (in Man.)

In order to see these arterial branches satisfactorily, an injection composed of size and vermillion must be thrown into a separated penis, through the art. profunda. (In the horse the pudendal and obturatorial artery are to be injected together.) As before mentioned, a part will escape into the cavities of the corpora cavernosa. When the injection has become cold, the corpora cavernosa must be cut open longitudinally, and that portion of the injection which has escaped into the cells is then to be washed out with great care. If a size of a greater degree of consistence has been employed, it will be found to have become solid on cooling. In this case the penis must be soaked in water, and the mass squeezed out softly and carefully, until the cellular tissue is emptied. When a thin size has been used, this will, of course, not occur; then washing alone will be sufficient.

If the tissue of the corpora cavernosa be now examined with a magnifying lens on its posterior third, it will be seen that, in addition to the distribution of the arteries already described, there is another class of vessels, having an entirely different form, size, and distribution; these branches are short, being about a line in length, and a fifth of a millimetre in diameter; they are given off from the larger branches, as well as from the finest twigs of the artery. Although fine, they are still easily to be recognized with the naked eye; they come off from the artery mostly at a right angle, and projecting into the cavities of the spongy substance, they either terminate abruptly, or else swell out into a club-like process, without again subdividing."

Omitting the references to these vessels in the stallion and the dog, we may proceed with M. Mueller's description of them in man.

"These twigs branch off from place to place, sometimes alone, sometimes in greater number: little bundles will be seen, in which from three to ten twigs stand together; these, as well as the former project constantly into the cells or venous cavities of the corp. cavern. penis. When the arteries thus form a tuft, they arise by a common stem, which immediately divides itself into the separate branches. Sometimes such a vessel, whether it proceeds from the artery as a single branch, or forms part of a cluster, divides itself into two or three parallel branches, which also end either abruptly, or else swell out near their extremity.

Almost all these arteries have this character, that they are bent like a horn, so that the end describes a half circle, or somewhat more. When such a branch so divides itself, there are formed doubly bent twigs, inclined one to the other. I have before observed, that many of these arteries enlarge towards their end; this enlargement is gradual, and is greatest at some little distance from the extremity, so that the end is somewhat conical. This cone, however, is rounded at the point, and, giving off no branches, terminates immediately. The diameter of these twigs, in their middle, is from the fifth to the sixth of a millimetre: they preserve a great similarity: thus those which branch off from the large trunk of the artery are not thicker than those which take their origin from the finest subdivisions."

Although these vessels project into the venous cavities, yet they are not

entirely naked, but possess a delicate membranous covering.

"The arteries have no openings which can be detected, either on their surface, or at their extremities; and if the blood, as it is probable, proceeds from them during erection in greater quantity into the cells of the corp. cavernosa, so it must either pass through invisible openings, or at least through openings which only become enlarged by the great extension of the vessels. If the great number of these tendril-like branches which are given off from the art. profunda penis be considered in comparison with the many fine nutritive twigs of the same vessel, it must be evident that when the former are filled, they must take up by far the greater portion of the blood conveyed by it. The diameter of the art. profunda, therefore, not only includes the nutritive twigs which arise from it, but also the tendril-like branches, which likewise deriving their blood from it, yet, it is probable, allow none to pass except during erection; therefore the blood in the unexcited state of the penis only pervades the nutritive branches, and thus only reaches the commencement of the venous cells in smaller quantities; whereas, during erection, it is probable that the blood passes in quantity through these tendril-formed vessels into the cells."

M. Mueller states that these vessels are most numerous in the posterior part of the corpora cavernosa penis, and in the bulb. In the middle and anterior portions of the former, they occur but seldom, and in the anterior part of the corpus spongiosum urethræ they are less frequent; in the glans, M. Mueller has not yet distinguished them.

Such is the account of M. Mueller. These minute anatomical investigations can be prosecuted by so few, that the statements of a discoverer must be taken for granted, until some industrious injector or dissector arises to confirm or to confute them. As the phenomenon of erection is by no means confined to the posterior part of the corpus cavernosum, it appears rather anomalous that there only these vessels, so essential to that phenomenon in the opinion of our author, should be numerous. This difficulty may, perhaps, be more apparent than real, and we shall congratulate M. Mueller on his discovery, if it is supported by the examinations of others.

MR. URE ON THE CHLORIDE OF ZINC, AS A REMEDY FOR CANCER.

Mr. Ure, formerly house-surgeon to the Glasgow Infirmary, and a very zealous and intelligent young gentleman, has lately been directing the attention of the profession to the use of the chloride of zinc, in cases of malignant ulceration.

Dr. Canquoin, of Paris, has published some papers on the best mode of preparing and applying this substance. Dr. C. would appear to have coquetted at first somewhat quackishly upon the subject, publishing his success before he gave any very accurate account of the means by which he attained it. His excuses are not so satisfactory as could be wished. But let this pass. Mr. Ure observes, in reference to the preparation of the remedy, that—

"Chemists offer the three following modes of preparing the chloride of zinc, which I have made the subject of comparative experiments:

1st, The neutral solution of zinc in muriatic acid may be evaporated to dryness, and fused. Or it may be obtained, 2dly, By distilling in a retort a mixture of one part of zinc with four of corrosive sublimate. Or, 3dly, by exposing to a strong heat, in an earthen retort, a mixture of six parts of decrepitated sea-salt with seven of dry sulphate of zinc; this process requires a red heat to separate the chloride by double decomposition. The product of distillation is of a greyish-white colour, translucent like wax; it enters into fusion a little above 212° Fahr., and becomes, on cooling, at first viscous, then solid."

Its chemical effects on the tissues of the body depend, in a great measure,

on its power of coagulating and combining with albumen. Mr. Ure ascertained the following facts.

When a few drops of a strong solution of the muriate of zinc are added to the albumen of the egg, a white viscid compound is formed, which, when put into water, falls to the bottom, and remains undissolved. A layer of this substance closely resembles the eschar following the application of the phagedenic paste to an ulcerated surface; and it dries in the air into a brittle, horny mass.

The solution of muriate of zinc is a good test of albumen, though not so delicate as that of corrosive sublimate. A single drop of it produces cloudiness in a dilute solution of gelatine.

With serum of blood it forms a viscid cream-coloured compound, analogous to that with white of egg. The liquid expressed from serum of blood coagulated by heat, becomes turbid on the addition of the muriatic solution.

A portion of the crassamentum, previously washed in distilled water, and then macerated in a solution of one part of the salt to ten of water, acquires in the course of some hours a firm coriaceous consistence and aspect, not unlike hepatized lung, or spleen that had been for a while immersed in the antiseptic saline solutions of the anatomist.

If the chloride of zinc, either by itself or in the form of paste, as proposed by Dr. Canquoin, be applied to an ulcerated surface or portion of the chorion, stripped of its epidermic covering, it constitutes with the organic texture, replete in albumino-gelatinous matter, a white inanimate crust or eschar. The great affinity of the chloride for albumen, may in some measure account for its energetic action on scirrhous and other morbid formations in which that principle predominates. From seven to eight hours are requisite for effecting this alteration. The slough is afterwards detached, like other sloughs, by an ulcerative process, the separation usually occurring in from eight to twelve days, or even sooner. The painful sensations occasioned by the application of the chloride of zinc usually cease in twenty-four hours. The eschar is white and very firm.

The four following formulæ are given by Dr. Canquoin, for the preparation of the paste.

I. Chloride of zinc one part, wheat-flour two parts.

II. Chloride of zinc one part, wheat-flour three parts.

III. Chloride of zinc one part, wheat-flour four parts.

IV. Chloride of zinc one part, chloride of antimony half a part, wheat-flour two parts and a half.

Twenty-four to thirty drops of water are to be added for each ounce of chloride.

The preparation of the phagedenic paste requires the utmost care and attention; hence, to procure it properly the following instructions must be scrupulously followed. The chloride of zinc, reduced to powder, is to be mixed, as quickly as possible, on a slab, with the given quantity of flour. One-half of the mixture is immediately to receive its proportion of water, and to be worked up progressively with a spatula, until it forms a homogeneous paste like honey. This paste is to be brought to the desired stiffness by trituration with the remainder of the dry ingredients, well beat for a few seconds, and then rolled out into cakes or wafers, of from half a line to four lines in thickness.

The quantity of water must be proportionally augmented, according to the increased amount of flour in the second and third formulæ.

The antimonial paste, No. IV., is to be moulded into a crayon shape; because, as it preserves constantly the consistence of soft wax, a suitable thickness can always be given to it, so as to adapt it to the form of certain cancerous tumors, presenting inequalities of surface.

Mr. Ure thought that it would be better to substitute some inorganic powder for the flour, the spontaneous chemical changes in which might possibly be prejudicial. He found that the anhydrous sulphate of lime, in a state of purity, answered very well. The paste

so formed resembles putty, and is perfectly plastic.

The following is the manner of using the paste.

"Where the integuments are sound, the epidermis should be removed by means of a blister; and on the following day, one or other of the above preparations, corresponding to the thickness of tissue to be destroyed, is to be applied to the cutis of the diseased part. The sensibility of the surface must also be considered; for should it possess but a feeble degree of vitality, the most powerful form is to be preferred.

The paste No. I. four lines thick, applied during four days, is capable of producing an eschar of from one and a half to two inches in depth. The same paste, three lines thick, applied during three days, will furnish an eschar of one inch at least in depth; the same compound, two lines thick, will in two days determine an eschar of not less than half an inch. The paste No. I. of one line, will yield, in twenty-four hours, an eschar of three lines. Finally, the paste No. I., of half a line, will produce, in the same time, an eschar of at least one line.

These changes will manifest themselves with the above precision only on tissues endowed with a considerable share of sensibility, and of which the consistence is nearly normal. In the gristly (lardacé), almost fibro-cartilaginous degeneration, about one-third is to be deducted from the thickness of the eschar above-mentioned.

No. II. is employed in cases of cancerous ulceration and superficial carcinoma, which are attended with much pain.

No. III. is eligible in every species of cancerous affection, occurring in nervous subjects, who are incapable of supporting the violent pain which the preceding more concentrated escharotics might occasion. It is so much less productive of suffering, as it is slower in its action.

Lastly, the antimonial paste is best adapted to nodulated cancerous tumors, for which a more decided escharotic action is required.

These preparations, applied over a denuded surface, excite, in a few minutes, a feeling of heat, which, ere long, rises to a burning heat; which unpleasant symptoms may be relieved by an opiate enema.

When the operation of the paste is complete, it may be gently taken off, and the eschar covered with an emollient poultice until its separation, which usually happens, as formerly stated, from the eighth to the twelfth day, according to the thickness of the layer employed. The application is to be repeated again and again, till the whole morbid structure is removed; after which the surface is to be treated with simple digestive ointment; or, in case of acute cancer, with cataplasms, until the cure is finished."

The preceding are the principal circumstances necessary to be known by those who would test the value of the chloride of zinc. We would offer one or two remarks upon the subject.

We fancy that few practical surgeons in this country will believe, for one instant, that it is a remedy for cancer. An escharotic cannot be so sure a means as the knife of eradicating a morbid growth. Yet, even where amputation of a limb has been performed, how frequently do we witness a re-appearance of the disease in other parts. In the majority of cases of scirrhus or medullary sarcoma, if any operation at all is proper, that operation should be the removal of the affected part by the knife. It is more certain, more expeditious, and far less painful than the use of any caustic can be.

But there are some ulcerations possessed of a less degree of malignancy than scirrhus or medullary sarcoma. Such ulcers occur about the face of old persons, as well as in other situations. They are malignant enough to be irremediable by any measures short of those productive of destruction to the part; yet they do not contaminate the constitution, nor are other parts or other tissues affected, after the removal of the primary ulcer or growth.

The chloride of zinc promises to prove an exceedingly useful application in cases of this nature, and Mr. Ure deserves much credit for introducing it to

the notice of the profession in this country so ably as he has done.

Some Cases of Disease of the Kidney, in which the Symptoms were referred to the Bladder. By Henry James Johnson.

Sir Benjamin Brodie, in a note appended to the first edition of his Lectures on the Diseases of the Urinary Organs, has made the following observations.

"On referring to the remarks which I have made under the head of *Irritable Bladder*, in the Fourth Lecture, I find that I have been guilty of a serious omission, inasmuch as I have not noticed the disordered sensations which are referred to the bladder, in many cases of disease of the kidney.

In speaking of renal calculi, I have mentioned the case of a lady, in whom a too frequent desire to void the urine, attended with a sharp cutting pain in the act of voiding it, was manifestly the consequence of a calculus impacted in the kidney; and many other cases have fallen under my observation, since my attention was called to the subject, which have convinced me that it is not uncommon for a patient, who labours under a stone, or abscess, or even inflammation of the kidney, to describe his symptoms as if they belonged to the bladder, which is free from disease, rather than to the organ in which the disease is actually situated. It is needless to point out how important a knowledge of this fact is to the practical surgeon. Those who are unacquainted with it, or whose minds are not constantly open to the probability of its occurrence, cannot fail to mistake the nature of a certain number of the cases concerning which they are consulted, to the no small detriment of their patients.

In these cases, in addition to the irritable state of the bladder, and pain referred to the neck of the bladder and urethra after micturition, there is usually a dull pain in the region of the affected kidney, extending downwards and forwards to the groin and pubes, or down the thigh. Occasionally there is pain referred to the corresponding testicle; and I have even known the testicle to be affected with a slight degree of inflammation, swollen, and sometimes indurated. The urine is generally acid, but slightly turbid even when first voided, and exhibiting a considerable quantity of albumen, when exposed to heat, or on the addition of nitric acid. In some cases the urine deposits a purulent sediment. On introducing a catheter, no obstruction is perceptible in the urethra, and the patient is found to be capable of emptying the bladder by his own efforts; and when the bladder is examined by means of a sound, no calculus can be detected in it. In the progress of the disease, it not unfrequently happens that there is evidence of an abscess of the kidney bursting into the ureter, there being a sudden discharge of pus and blood with the urine, preceded by symptoms similar to those which mark the descent of a calculus from the kidney into the bladder; and I have known masses of coagulated lymph, laminated, and of a cylindrical form, as if moulded to the shape of the ureter, to be discharged in the same manner.

It is by attention to the foregoing circumstances that we are enabled to distinguish between the irritable state of the bladder, which depends on disease of the kidney, and that which depends on other causes. Nevertheless, we are sometimes perplexed in our diagnosis, so that it is only after a careful investigation of the history and present symptoms, and after having for some time watched the changes which take place, that we are enabled to arrive at a satisfactory conclusion as to the real nature of the case."

The preceding hints well deserve the attention of practical surgeons. Cases of the nature described by Sir Benjamin Brodie are not very uncommon, and the symptoms are calculated to mislead an inexperienced or incautious person. As I have met with several cases of the kind, and had lately the care of a very interesting one, perhaps the details may not be unacceptable to the readers of this Journal.

Case 1. A boy, 16 years of age, was sent to me by a physician, for my opinion, in the early part of the year 1833. He was of rather a strumous appearance and habit, but was stout and seemed to be in excellent health.

He complained of frequent desire to make water, with great irritation in the course of the urethra. The act of micturition was attended with acute pain in that part of the urethra contained in the glans penis; the pain lasting for a short time after micturition was completed. Small quantities of urine were voided at a time, but the stream was never suddenly arrested. In consequence of the frequency of making water, and of the pulling and pressure to which the penis was subjected, in order to deaden the pain in the urethra, the organ had become much elongated. The urine was pale, and clear—acid—and slightly albuminous. There was no pain in the back, either with or without pressure, nor any retraction or uneasiness of the testicle.

On sounding the patient, I could detect no calculus in the bladder. Much pain was complained of, when the instrument came in contact with the trigone, and on making pressure on this part of the bladder from the rectum, the lad experienced considerable uneasiness. The prostate was of its natural dimensions. The bladder was capable of emptying itself perfectly.

The symptoms had commenced some months previously, and had gradually grown worse. The boy had been sounded several times, but no calculus had ever been discovered. There was no obvious cause for the disorder, which was considered by those who had attended him one of "irritable bladder."

The severity of the symptoms, in conjunction with the absence of calculus in, or appreciable disease of the bladder, and the albuminous condition of the urine, induced me to conclude that the case was one of affection of the kidney. What that affection was, there were no means of ascertaining. I wrote to the gentleman who had sent the boy to me, acquainting him with this opinion, and expressing an apprehension that the result would be fatal.

After a short time the boy was placed under my care. The symptoms had augmented in intensity, but were the same in kind. No more than a wine-glassful of urine could usually be retained in the bladder—the pain in voiding it was absolutely excruciating—and day and night the poor boy was roused to make water every hour or hour and a half. The quantity of albumen in the urine was increased. Still no alteration of the bladder could be detected by the most careful examination.

It would be useless to enumerate the various remedies that I employed.—None were productive even of much palliation to the sufferings. Viewing the case as most probably one of chronic inflammation of the kidney, I tried frequent small cuppings on the loins, and subsequently friction with the tartar-emetic ointment. This plan, with the exhibition of pills consisting of the milder narcotics, as lettuce and conium, and occasional warm-baths, seemed to give more relief than any other. Any thing in the shape of a diuretic medicine aggravated all the symptoms. The uva ursi, the dandelion, the buchu were injurious. Exhausted with the incessant calls to make water, and with pain, the boy's health and strength rapidly declined, and his friends at length removed him to his native county, Norfolk. They had an insuperable objection to the idea of an examination after death, and they did not let me know of the patient's decease until some time after its occurrence. Seven or eight months elapsed between the period of my first seeing the boy and his death.

I presume that this was really a case of disease of the kidney; and although dissection neither established its actual nature, nor indeed the correctness of the opinion at all, yet the similarity of the two succeeding cases in their most important features, will probably remove all doubt from the minds of the most sceptical.

Case 2. A gentleman, about 50 years of age, was under the care of Mr. Bagster and my Father, for just such symptoms as have been detailed in the pre-

ceding case. They were so like those of stone in the bladder, that Sir Benjamin Brodie was requested to sound the patient. He did so, but could discover no calculus.

Suddenly the gentleman was seized with symptoms of acute peritonitis, and in a day or two he died.

The body was examined in the presence of Sir Benjamin Brodie and Mr. Bagster. There were the usual results of violent peritoneal inflammation—lymph and puriform fluid. But both were tinged of a bilious colour, and it was found that the bile had escaped from the gall-bladder into the peritoneal cavity, through a small ulcerated opening in the former. This explained the peritonitis and the sudden death.

The urinary organs were carefully examined. The bladder was scarcely, if at all, altered. Perhaps its mucous membrane was rather darker than it should be, but no farther change had taken place.

The right kidney displayed no material alteration. The left kidney, however, was far from healthy. Its capsule could be detached with much more facility than natural. The substance of the kidney was very dark coloured, from the dilated and loaded condition of its blood-vessels, and its structure was softer and more lacerable than it should be. The pelvis of the ureter and several of the infundibula were dilated, and the mucous membrane lining them injected, and evidently in a state of chronic inflammation. In the substance of the kidney, a calculus of the mulberry kind was impacted; it was lodged in a sort of cyst. In another part of the kidney was a circumscribed abscess, about the size of a filbert, without any calculous deposition in it.

The preceding case is highly interesting on this account; accidental circumstances permitted an examination of the body in an early stage of the disease. When this has continued for any length of time, chronic inflammation is set up in the bladder—the disease in the kidney itself becomes both extensive and complicated—changes, perhaps, take place in contiguous or in distant parts—and, the exact nature of the primary affection is distinguished with difficulty, if it can be so at all, amidst its numerous and serious consequences.

In the next case the disease proceeded to its final termination, and its details may enable us to form an estimate of the effects it may give rise to.

Case 3. In August of last year, a gentleman, about 55 years of age, consulted my Father, on account of what he thought was an affection of the bladder. My Father referred the gentleman to me, in order that I might ascertain the state of that organ. The following were the symptoms and history of the case.

There was frequent desire to make water, the patient being obliged to void it every two or three hours during the day, and twice or thrice during the night. The quantity passed at a time was small, seldom exceeding half a pint, and generally not amounting to more than an ounce and a half or two ounces. The urine was straw-coloured, and not perfectly pellucid, though it could not be said to be turbid. Here and there was seen floating in it, a minute thread, apparently, of lymph. On testing it, the urine was acid, and decidedly albuminous.

There was much pain prior to, in, and after, but principally in the act of micturition, the pain being referred to the perineum, and the portion of urethra contained within the glans. The irritation experienced both in the bladder and urethra, unless the desire to make water was complied with, appeared to be excessive. After the urine was discharged, the patient felt ease for ten minutes or a quarter of an hour, at the end of which time, the irritation and pain usually recommenced.

The exit of the urine was never abruptly stopped, nor was any blood discharged with it. There was no pain in the loins, either with or without pressure; but occasionally a little uneasiness had been felt, in the lower and back part of the left side of the chest.

The general health was not very good, the digestive organs being easily deranged. The tongue was habitually furred, the bowels apt to be confined,

and there was a disposition to a sense of confusion in the head. The countenance was rather pinched, sallow, and unhealthy.

On introducing a sound into the bladder, I could detect no calculus. There was some tenderness about the trigone and prostate, but no perceptible enlargement of the latter. The bladder was able to empty itself completely, or very nearly so.

This gentleman had been an employé in a government office, and had always, from his youth, been ailing. A few years before I saw him, he had been obliged to retire from his office, on account of bad health—I believe affection of the head. His present symptoms had commenced about nine months back, and had been progressively, though gradually, getting worse. Just before he came under my care, he had been to a very eminent surgeon in London, who sounded the bladder, and was inclined to think that serious disease of it existed.

From the general character of the symptoms, the albuminous urine, and my inability to detect a calculus in the bladder, or any alteration in its structure, I came at once to the conclusion that the case was one of disease of the kidney, and that the irritability of the bladder was merely symptomatic of renal affection. My Father arrived at the same opinion, and we communicated it to the friends, to whom we also hinted the probably fatal issue of the malady.

We directed the abstraction of small quantities of blood by cupping from the loins and perineum—mild aperients—warm water enemata, with hyoscimus and laudanum—occasional suppositories of lettuce and belladonna—passive exercise—and country air. For a short time the patient improved. But the amendment was transitory only, and the symptoms became slowly more and more severe. The uva ursi, with or without the liquor potassæ, and henbane, greatly increased the quantity of urine, and aggravated the distress. In October, I had the pleasure of meeting Sir Benjamin Brodie on the case. He took the same view of its nature, and recommended a steady persistance in the plan of treatment adopted. Unfortunately no material benefit was obtained, and about Christmas, I joined Dr. Prout in consultation. His opinion coincided with our's, and advised the establishment of a seton in one loin. This I made, but it produced such excessive irritation, and so alarmingly reduced the patient, that, after endeavouring to retain it for a fortnight, it was necessarily withdrawn.

The patient was now in a pitiable condition. He was obliged to make water every half hour during the day, voiding from half an ounce to an ounce at a time. At night he was obliged to rise for the same purpose from ten to fourteen times, or oftener. The irritation in the penis and the perineum was extreme—the urine was highly albuminous, and retained its former acidity. The patient was absolutely worn down with suffering—anxious—emaciated—feeble.

It would be useless to particularize the medicines that were employed.—Those which gave most ease were sedatives by the mouth and rectum—cupping to a small amount upon the perineum—and belladonna plaisters on the perineum or the loins. Thinking that possibly direct applications to the mucous membrane of the bladder, might diminish its irritability, though sympathetic only, I injected into it warm water containing conium or lettuce in solution. At first, the injection was attended with much relief, but after two or three times it became useless.

In the latter end of January, the patient had the advantage of Mr. Liston's advice. He prescribed the alcoholic extract of nux vomica in minute doses. The symptoms were relieved for a few days, but, soon afterwards, the patient was attacked with fever, vomiting, great depression, and aphthæ. When I saw him, after a short interval, he was emaciated to a great degree—had incessant vomiting—hectic fever—and the urine contained a large quantity of pus.

In the course of two or three weeks the vomiting had subsided, and the aphthous condition of the mouth and throat was relieved. The hectic con-

nued unabated, and the debility was excessive. Still the patient was under the necessity of being propped up every half-hour, or oftener, in order to make water, for he was unable to use the urinal. The quantity of pus in the urine was enormous, and for two or three weeks preceding his death, bubbles of sulphuretted hydrogen gas were discharged from the urethra. Twice or three times in the last three weeks, there was a temporary retention of urine, for which I was obliged to use the catheter. I found that an instrument, of a size that had formerly been introduced with facility, could not be passed through the membranous part of the urethra, and that great pain was experienced when the instrument arrived there. The poor gentleman was in such a state of misery and exhaustion, that I made no examination by the rectum, but contented myself with relieving him by a small catheter.

About a fortnight before death, we accidentally discovered a tumor of some size in the right iliac and lumbar regions. It was apparently contained in the abdominal cavity, and both my Father and myself concluded that it was the right kidney, either greatly distended with pus, or the seat of some other alteration. The stupor of the patient, his sufferings, and his utter repugnance to be touched, or even spoken to, prevented us from meddling with him in any way, or from making any examination but by stealth. We were under the necessity of keeping him continually under the influence of opium.

On the 5th of May he died.

Dissection. I examined the body on the 7th, in the presence of Mr. Liston —Mr. Hunter, of the guards—and my friend, Mr. Henry Charles Johnson.

The chest was opened first, and the whole of the right side was found full of pus. There were all the characters of empyema—several quarts of purulent fluid in the pleural sac—the costal and pulmonary pleura thickly coated with false membrane—and the lung compressed to very small dimensions, and flattened against the mediastinum. In the apex of the lung were two or three calcareous depositions; but in other respects its substance was healthy. Of course the air had been pressed out of it, and it felt, in consequence, like wetted chamois leather. The left lung was united to the side of the chest by extensive and old adhesions. It was healthy, with the exception of the apex, where, as in the other lung, a few calcareous depositions existed.

There was slight hypertrophy of the left ventricle of the heart, which was otherwise free from alteration.

On opening the abdomen, and removing all the viscera with the exception of the right kidney, this was found to constitute the tumor that had been distinguished during life. But I was surprised at its appearing much smaller than that tumor had seemed to be. This was presently explained. The kidney itself was about twice its natural size. Its natural structure was entirely destroyed, and it was little else than a congeries of abscesses, from the size of a marble to that of a walnut, enclosed in a greatly thickened capsule. The matter contained in these numerous cavities was thick, and rather curdy. One of the abscesses, seated near the posterior surface of the kidney, had opened by an ulcerated aperture into the lumbar fossa. Here there was an immense abscess, the parietes of which were formed by the common integument behind, the greater part of the quadratus lumborum and contiguous muscles being destroyed—in front by the peritoneum and fascia—by the vertebral column internally, the psoas being almost absorbed—by the diaphragm above—and below by the ligament of Poupart. This collection of pus it was, which, with the kidney, formed the large tumor that had been felt during the patient's life. But this was not all, for an ulcerated aperture was found in the diaphragm, near the last rib, sufficiently large to permit the finger to be passed through it. Through this opening the matter had made its way into the right side of the chest, and occasioned the empyema. So that there might be said to be one immense abscess from the summit of the chest to the groin—perforating the diaphragm—only prevented from bursting posteriorly by the mere

skin, the great substance of the muscles of the back being absorbed—bathing the vertebræ—and originating in one of many abscesses in the kidney, with which it communicated by a distinct fistulous aperture.

The walls of the ureter were greatly thickened, but its channel was unobstructed, and no calculus was any where discovered.

The left kidney was enlarged and vascular, but not apparently diseased. As it had to do much of the work of the right kidney, we may suppose that the vascularity and enlargement were the consequence of increased exertion.

The bladder was not at all thickened, nor was there any evidence of chronic inflammation of its mucous membrane. But on the fundus of the bladder, and particularly on its left side, were a few minute projections of the mucous membrane, of the size of millet-seeds, and looking like very small cutaneous warts.

Round the membranous part of the urethra, was a small collection of yellow pus, situated in the cellular tissue, between the prostate and the bulb, and totally unconnected with either. The canal of the urethra was not perceptibly encroached on by this surrounding suppuration.

There was no other alteration worth mentioning discovered. The head, however, was not examined.

It cannot be doubted that this interesting case was, in its origin, one of chronic inflammation of the kidney, terminating in the formation of circumscribed abscesses. The discharge of the contents of one of the latter into the lumbar fossa, and the subsequent increase of the abscess in the latter, and *its* entrance into the chest, are all sufficiently intelligible. An abscess of the kidney, opening thus, would be more likely than an ordinary collection of pus to give rise to such results, as some urine must almost necessarily be mingled with the matter.

Whether the minute excrescences of the mucous membrane of the bladder contributed in any way to aggravate the symptoms, is difficult to be determined. Probably they exerted little influence, as we find symptoms equally severe, in other instances of alteration of the kidney, unaccompanied with any such condition of the bladder.

The ingress of the matter into the chest must have occurred towards the conclusion of the patient's life, when he lay in a state of mixed stupor and exhaustion. It gave rise to no symptoms calculated to excite suspicion or attention—a circumstance not uncommon in the latter stages of debilitating maladies. I recollect the case of a patient at the hospital, who had empyema after scarlet fever. The operation of paracentesis thoracis was performed, and he lay for some time before his death in a state of much exhaustion and of hectic. After death we found that, without any symptoms whatever during life, suppuration had occurred in one hip-joint, and consecutive dislocation of the head of the femur, which was greatly absorbed, had actually taken place on the dorsum of the ilium.

The collection of matter around the membranous part of the urethra would seem to have occurred, also, in the two or three weeks preceding death. It will be recollected that, about that time, retention of urine occurred twice or thrice, and that a small catheter only would pass. Why it should occur it is not easy to say; but, when large collections of pus exist in any part of the body, other collections are apt to form in other parts. The continual straining to make water must, of course, have been a source of irritation to the urethra, and rendered it more liable than would otherwise be the case to inflammatory action.

This case is probably deserving of attention, because, as I had an opportunity of tracing it from an early period to its conclusion, we are enabled to form an estimate of the consequences that may ensue from what seem to be but slight beginnings. If the symptoms of what is popularly called "irritable bladder" are conjoined with an albuminous condition of the urine, the surgeon should be aware that he may have a very formidable malady to contend with. There is reason to believe that it is not merely one, but several organic alterations of the kidney, that give rise

to this train of symptoms and consequences. Yet there is also reason to suppose that, in most instances, there is a chronic inflammatory condition of the organ, and a tendency to suppuration in it.

In the majority of cases, medicine would appear to exert little influence on the disorder. But, as we are only imperfectly acquainted with its pathology, and as the cases themselves have not been sufficiently watched or understood, to allow of any decisive conclusions being drawn, it would be improper to decide that the complaint is not at all under the control of treatment. Indeed, there are good grounds for supposing, that cases have done well under judicious management. In some patients, the progress of the disease is very slow. A man was in St. George's Hospital nearly five years ago, with symptoms of a very aggravated character. He left the house apparently dying. About two months ago he called on me, in order to be sounded. He was much in the same condition as when he was an inmate of the hospital. He was under the necessity of carrying a gum catheter about with him, and he passed it for himself very often during the day in the street-corners. The only perceptible alteration, was his appearing to be 20 or 30 years older than when I had previously seen him.

In the cases that have occurred under my own observation, the remedies that were productive of most relief were such as may be deemed adapted for chronic inflammation of the kidney. Frequent cuppings to a small amount on the loins or perineum—the application of a tartar-emetic plaster to the loins, or the establishment of an issue or a seton—the hip-bath—injections of warm water or of opiates into the rectum—mild aperients—regulated diet—and passive exercise. But it must be owned that rational as means of this description may appear, they are too commonly attended with only temporary benefit, or with none.

Dr. Ryan's Formulary of Hospitals.

To the Editor of the Med. Chir. Review.

A——h, May 18th, 1836.

Sir,—Having occasion to refer to your very valuable Journal for October, 1835, I observed in the Bibliographical Record the announcement of "a new Practical Formulary of Hospitals, &c. translated from the French of Milne Edwards and P. Vavasseur, by Dr. Ryan," and to which you have appended high recommendation. In consequence of this I procured the book a week or two ago, not, however, without some misgivings, I must confess, when I saw the name of Henderson as the publisher. On examining this new Formulary of hospitals, my fears were realized; and I feel convinced that the character given of it in your Review must have been inadvertently inserted, without due examination of the book.

It is, without exception, one of the most inaccurate, and, consequently, useless publications ever presented to the medical public. If it were, however, merely useless, it might pass unnoticed; but, if the directions be followed, it must prove highly dangerous. The value of a work of this kind consists mainly in its accuracy; and the want of that is inexcusable, where the labour of the writer is only that of translation, or of mere transcription.

To shew the inaccuracy with which this work has been got up, I have cursorily looked it over, and of the many hundred formulæ which it contains, I believe that not less than one-sixth are manifestly erroneous. Probably many more are inaccurate, for I have only marked such errors as are palpable; *e. g.* where ounces are put for drachms, and vice versa—or where the weights are altogether omitted—or where the directions for the use of one article apply to another—or where the substances blended together are incompatible, or impossible to be mixed. To make these blunders appear still more ludicrous, a list of twenty-two errata is given, to shew that the work has been carefully revised—and even these errata contain errata!

To prove these assertions it will be

necessary to go a little into detail; and, as there is scarcely a page in the book without an inaccuracy, I will make the selections at random—first from the translator's own formulæ, and then from his translated ones.

Page 262, we have the "anti-dysmenorrhœal mixture" (Ryan).

"℞. Misturæ camphoræ.. ℥vss.
Tinct. *Guiaci.* am. .. ℥vj.
Liq. ammon. acet. . ℥j.
Liq. opii sedat..... ℥j.—jss.
Syrupi aurantii .... ℥j.
Fiat mistura: de qua unum cochleare amplum mane vespereque exhibeatur.

This mixture is often beneficial in painful menstruation, caused by irritable uterus in hysterical women. A tea-spoonful of laudanum is an old remedy in this country. Guaiacum is strongly recommended by Professor Dewees, of Philadelphia, and acetate of ammonia by Professor Masuyer, of Strasburg, and M. Cloquet, of Paris. I have, therefore, combined them."

I have copied this note as a specimen of our author's method of prescribing. He finds one substance recommended by one writer—a second by another—and a third by some one else. He therefore sagaciously combines them all together, forming a quartum quid, which of course unites all their good qualities. I will only extract one more of Dr. Ryan's own choice formulæ.

"Aphrodisiac lozenges" (Ryan), *p.* 280.

"℞. Panacis, *v.* Fol. pulv. ℥v.
Vanillæ aromat..... ℥x.
Succini essentiæ .... ℈ss.
Tincturæ lyttæ..... ℥v.
Olei cannellæ ..... ℥l.
Sacchari purif..... ℔xij.
Mucilag. acaciæ. q. s. Fere intime et divide in pastillos, gr. xxiv., ex quibus sumantur tres vel quatuor ter quaterve de die."

This seems to be a favourite subject with our author; for, although he states that "it is doubtful whether there are any aphrodisiac remedies," he yet subjoins a somewhat indecent commentary of several pages on aphrodisiacs in general, drawing hints and analogies from the means used for increasing the generative powers of stallions and bulls—the methods pursued by the Jews for this purpose, &c.

Of the translated formulæ we have, in almost every page, such specimens as this.—*Page* 129.

"Anti-scrofulous potion—Hôt. Dieu.
℞. Tincturæ gentianæ.. ℥j.
Ammoniæ carbonatis ℥ss.
Misce.

The carbonate of soda is sometimes substituted for the ammonia. ***Externally***, as a stimulant and resolvant."

No directions are given for the internal use of this potent potion. On turning to Ratier's Formulaire, I find the potion anti-scrophuleuse of the Hôtel Dieu, contains ℥j. of the tinct. gentian to ℥ss. of ammonia or soda. But he adds to this, as to all his other formulæ, a useful note:—"Plusieurs des médecins de l'Hôtel Dieu, persuadés que les scrophules s'accompagnent d'un état inflammatoire, que les toniques ne peuvent qu'aggraver, emploient un traitement tout opposé."

Page 380.—"Submuriate of bismuth: in doses of a drachm, an irritant poison—in small doses, a very efficacious sedative in neuralgia of the stomach and intestinal canal." He selects only two formulæ for this mineral.

"Sedative powder—Hôtel Dieu.
℞. Bismuth. subnitr... gr. iv.
Magnes. calcia....
Sacch. purif.... āā gr. xl.
In chartulas iv. divide. Capiat j. singulis horis."

This is a correct translation of the "poudre contre la gastrodynie"—Hôtel Dieu, M. Recamier; and, if this be the proper dose for Frenchmen, the next formula would seem to shew that the Americans require stronger medicines.

"Tonic pills—H. of America.
℞. Bismuthi subnitr.... ℥ij.
Mucilag. acac. q. s. fiant pilulæ xxxvi. Dosis j. secundis horis."

If one drachm of the subnitrate of bismuth be, as the author says, an irritant poison, half a drachm every two hours must be a hazardous remedy.

Page 261.—"Sulphate of potassa;

an energetic stimulus. In large doses it is a violent poison—in small ones, it is a stimulant of all the organs, but more especially of the skin, the lungs, and the organs of circulation." A number of formulæ of this substance are given, *e. g.*

"Sulphuric Potion.—Hosp. of Germ.
℞. Potassæ sulphatis.... ʒj.
Aquæ..... Oj.
Sacchari..... ʒij.
Fiat Poti, cujus capiat cochleare magnum. Recommended in poisoning by arsenic."

One spoonful of this solution must be as efficacious in poisoning by arsenic, as the following boluses are in mercurial salivation.

"Boluses used in Mercurial Salivation.—Hosp. of Italy.
℞. Potassæ sulphatis.. gr. iij.
Succi sambuci, q. s.—fiant Boli sex, quorum sumat unum tertia quaque hora."

How these potent boluses are to be made is left to the skill of the compounder. Several other similar formulæ are given, professing to be copied from the French hospitals: but it is the sulfure de potasse (sulphuret) and not the sulphate as it is here rendered.

Even the most common medicines are so travestied in this work as to become quite ridiculous. Of calomel, for instance, we have page after page of such formulæ as these.

Page 321.—"Anti-syphilitic opiate."
"℞. Hydrarg. submur... ʒij.
Opii purific..... xiv.
Conf. rosæ ..... ʒiv.
About the size of a bean of this opiate should be taken in the morning fasting, and a cupful of the decoction of guaiacum should be administered immediately after each dose, to prevent salivation."

On the same page we have "purgative pastiles."

"℞. Hydr. submur. .. gr. vj.
Chocolatæ ..... ℈j.
Fiat trochisci c. quibus capiat unum omni nocte.
Very useful to purge infants."

Whether the xiv. in the former prescription means drachms or grains, or whether the latter is to be made into one pastile, as the "fiat" would seem to imply, is left to the sagacity of the prescriber.

Dr. Ryan states in his preface, that "this work includes every medicine described in the British Pharmacopœias;" but I have in vain looked for many of the most efficient formulæ even in the London Pharmacopœia, and many of those which he has transcribed are inaccurate, vide liniment. hydrarg. &c.; and the calculation of the quantities of the efficient articles contained in them is equally so, vide Pil. hydr. subm. comp. &c. The index of the work, too, is so carelessly made as to be nearly useless. Even the errata, as I have above observed, contain errata. I need only instance one.

Page 55, first formula, *read* gutt. iij. Now, on referring to this page, there are no formulæ containing drops. On the next page we have this prescription:

"Collyrium of the *act*ate of lead—Hôpital de la Charité."
℞. Liquoris plumbi acet. gutt.
Aquæ puræ ..... ʒiv.
Ft. collyrium.

The resolvent collyrium of the Hôp. des Enf. differs only from the preceding, in the water being replaced by the infusion of elder flowers, and the acetate of lead being ʒj. to Oj. of liquid."

The above, then, is the prescription, I suppose, referred to; but, even in this simple formula, and the accompanying note, there are four errors.—1st, the reference is incorrect; 2dly and 3dly, the ingredient, and the quantity in the collyrium of the acetate of lead is wrong; the true formula of the Hôp. de la Charité being—

Aquæ (eau commune) ..... ʒiv.
Plumbi acet. (acet. de plomb.) gr. x.

and, 4thly, the resolvent collyrium of the Hôp. des Enfans is not a solution of the acetate of lead, but is as follows:

Infusion de fleurs de sureau.. ℔j.
Acetate de plomb. *liquide* (liq. plumb. acet.)..... ʒj.
Ft. collyrium.

It would be an ungracious and useless task to pursue farther these inaccuracies, which indeed present themself in almost every page; and one cannot but wonder what object the translator could have in giving to the medical public such a work. It mutilates and injures the character of the original; and is in itself worse than useless. After such models as Thompson's Conspectus and Ratier's Formulaire, it is trifling with the time and the pockets of medical men to obtrude on them such a publication as this. Some of Dr. Ryan's practical remarks are, it must be confessed, valuable. Some of his prescriptions are also unexceptionable; and if, instead of giving indiscriminately this farrago of useless and obsolete formulæ, he had made a careful selection from the foreign hospitals—from the prescriptions dispersed throughout your Journal, and other works of established character—from the London and provincial hospitals—as well as from private practice—he might have compiled a work of the highest practical utility, meriting the eulogium with which he has with great complacency characterized the present. "This Pocket Remembrancer," he says, "is in my opinion infinitely superior to, and more useful than, any other Conspectus of the Pharmacopœias or of prescriptions in our language."

I am, Sir, &c. &c.

T. P.

To Dr. Johnson,
&c. &c.

The above correspondent has given us his name and address. He has been rather too severe on the translator, and we have struck out several of his strictures. In justice to the public, we could not conscientiously refuse publication of this letter, as it will cause greater vigilance, and insure greater accuracy in a future edition. The transcription and correction of a volume of pharmaceutical formulæ, indeed, require such a sacrifice of time and labour, that we are astonished Dr. Ryan should embark in such a work as the above, considering the multiplicity of his avocations, professional and literary. Under all circumstances, Dr. Ryan should immediately examine the work, and print a full list of the errata, which purchasers can refer to and correct with their pens in the proper places.—*Eds.*

Notices of some New Works.

1. THE CYCLOPÆDIA OF ANATOMY AND PHYSIOLOGY. Edited by ROBERT TODD, M.B. &c. &c. &c. Parts V. and VI.

THIS meritorious work proceeds with regularity, and, we hope, with success. When completed, its volumes will be valuable to every surgeon, for reference and for instruction.

The Fifth Part commences with the conclusion of an article on the Morbid Conditions of the Blood. The Sixth Part terminates with the commencement of a description of the cilia in the infusoria, polypi, acalephæ, &c. The intermediate articles are on the normal and morbid anatomy of bone—the brachial artery—the bursæ—the carnivora—the carotid artery—cavity—cellular tissue—cephalopoda—cerumen—cetacea—cheiroptera—chyliferous system—cicatrix. The descriptions are in general very good—the engravings numerous—the style of the Fasciculi very creditable to all parties.

It would be ridiculous to offer an analysis, and it would be difficult to present a review of an elementary production like this. Yet when we use the term elementary, we are sensible that we do injustice to many of the contributors, who have thrown together information that could scarcely be collected by the majority of readers, and added the results of their own reflection and observation. We cannot pretend to have perused all the closely

printed pages, and therefore, after uttering a general and a well-deserved encomium, we must content ourselves with a desultory glance at one or two of the more prominent articles.

Mr. Owen, the able conservator of the Museum of the College of Surgeons, has communicated an elaborate and an excellent memoir on the cephalopoda. Perhaps the following extract on the "ink bag" of the cephalopoda, may display in some degree Mr. Owen's style. His varied and extensive information cannot be so easily exhibited.

The apparatus for secreting an inky fluid is wanting in the nautilus, which is defended by its strong shell.

"The ink-bag varies in its relative position in different *Dibranchiata:* in the Cuttle-fish it is situated near the bottom of the pallial sac, in front of the testicle or ovary. In the Calamary it is raised close to the termination of the intestine; we have found it similarly situated in the Argonauta, Sepioteuthis, and Rossia. In the Octopus it is buried in the substance of the liver, a small part only of its parietes appearing on the anterior surface of that gland, from which its duct is continued forwards to terminate in this genus immediately behind the anus.

From this connection of the ink-bag with the liver in the Poulp, Monro was led to suspect it to be the gall-bladder. What its real nature may be still remains doubtful; De Blainville and Jacobson regard it as a rudimental urinary apparatus: Sir Everard Home compares it to the secreting sac which opens into the rectum in Rays and Sharks, and this we consider to be the true homology of the ink-bag. It is interesting, indeed, to observe that corresponding anal glandular cavities in the Mammalia are in many instances modified to serve by the *odour* of their secretion as a means of defence, just as the part in question operates in the Cephalopods by reason of the *colour* of the ejected fluid.

When the ink-bag is laid open and well cleansed of its contents, its inner surface is seen to be composed of a fine cellular or spongy glandular substance: its exterior coat is of a tough white fibrous texture, and its outer surface commonly exhibits a peculiar glistening or silvery character.

The ink-bag probably attains its largest proportional size in the genus *Sepiola*, where it presents a trilobate form. It is of an oblong pyriform shape in *Sepia*, *Sepioteuthis*, and *Loligo*. It is relatively larger in *Sepia* than in *Octopus*, and the quantity of water which its contents will discolour is very surprising: it behoves the anatomist, therefore, to be very careful not to puncture this part during the dissection of a Cephalopod.

In the living Cephalopods the inky fluid is secreted with amazing rapidity; we have seen an Octopus, which had previously discoloured the water for a considerable extent around it, immediately after its capture continuing its black ejections several times in quick succession, and ultimately expelling in convulsive jets a colourless fluid, when the powers of secreting the black pigment were exhausted.

In every species of Cephalopod which possesses this organ, the tint of the secretion corresponds, more or less, with the coloured spots on the integument. The Italian pigment, called 'Sepia,' and the Chinese one, commonly called 'Indian Ink,' both of which are the inspissated contents of the organ above described, afford examples of different shades of this singular secretion.

If the Cephalopods are enabled thus to conceal themselves during the day, they have also the power, by means of another secretion, to render themselves conspicuous by night by means of a phosphorescent exhalation."

We think there can be little doubt that the opinion advanced by Sir E. Home, is the most philosophic one, —that the ink-bag in the cephalopods is analogous to the secreting organ near the anus in other creatures; and that it serves as an apparatus of defence. The illustrations of the article on cephalopoda, are profusely lavished on the reader. Mr. Owen is a great acquisition as a contributor to the work.

We may notice some remarks on the properties of a cicatrix by Mr. A. Dodd.

The difference between newly-formed skin and the old skin are thus enumerated.

1. The new skin, as is well known, occupies a smaller space than the old; whence the familiar contraction of cicatrices. Of course, this contraction is proportioned to the laxity of the subjacent cellular tissue, and surrounding parts.

2. The texture of the cicatrix is frequently harder and thicker than the natural skin. This circumstance varies considerably, but we believe this variation will be found to bear a pretty exact relation to the degree of contraction, to the length of time occupied in the cure, and to the irritation to which the ulcer was subjected in the process of healing. When these have been considerable, the hardness is correspondingly great, while, if the cure has been expeditious and the part been kept extended and irritation avoided, the cicatrix remains soft, thin, and pliable, a point of great importance in practice as applied to the healing of burns. 3. The colour of the new skin is different from the natural parts. This arises from the want of rete mucosum, which is not regenerated till long after the other tissues, and sometimes not at all. For this reason a cicatrix in a Black is as white as that in an European; but after a considerable lapse of time, this structure is sometimes formed anew, and in some instances becomes even of a darker colour than before. 4. The surface is perfectly dry from the want of exhalent pores, which are never found to be restored even in the oldest cicatrices. Indeed, in cases where the chorion has not been destroyed through its entire thickness, the loss of substance reaching only through its outer layers, these pores are generally obliterated, and the important exhalent function of the skin is annihilated; and even when the injury has extended only through the external vascular structure of the skin, as is the case in the healing of a blister which has been long inflamed, we have observed a drier state of the parts, and more polished than the surrounding skin which had not been injured. From this peculiarity in the cicatrix, when the whole body is bathed in sweat these parts are dry and polished. This state of dryness, however, partly results from another anatomical deficiency, namely, of the perspiratory glands, which are destroyed in cases where the entire integument has been injured, and these are of course never regenerated. 5. The new tissue contains no hairs, and if, after superficial wounds, a few scattered hairs appear on the surface, they are feeble and white. 6. After the healing of a large ulcer of long standing, the new surface is sometimes much lower than the surrounding skin. 7. The elasticity of the cellular tissue under the new skin is diminished. This is seen in œdema and in emphysema. The restoration of the nervous and vascular functions in the cicatrix, doubtless varies in amount, in different cases. But a cicatrix is after a time less vascular than the skin was previously, as may be seen by its white colour, and imperfect injection.

" On the temperature of the cicatrix we have not made sufficient observations to generalize, but we have found that the actual temperature of the bridle from a burn, while it retains its hardness, is several degrees above that of the healthy skin, while the power of retaining its temperature, or of resisting the extremes of heat and cold, is much inferior in the cicatrix to that which the healthy skin possesses, although the actual temperature, *under ordinary circumstances*, is the same as the surrounding skin. Almost every traveller to the Poles or to the Tropics mentions the liability of old ulcers that had been healed, to announce the extremes of temperature by pain and inflammation."

In picking out the preceding passages, we are sensible that we may not have done justice to the work, nor indeed to the very authors we have quoted. But we can conscientiously add in parting, that this Cyclopædia deserves in a high degree the encouragement of the profession, and especially of our young friends who are entering on its study.

II. PRACTICAL ANATOMY OF THE NERVES AND VESSELS SUPPLYING THE HEAD, NECK, AND CHEST: INTENDED AS A GUIDE FOR THE USE OF STUDENTS IN THE DISSECTION OF THOSE STRUCTURES. By EDW. COCK, Demonstrator of Anatomy at Guy's Hospital. 12mo, pp. 242. London, 1835.

THE author considers it necessary to apologise for intruding another manual on the patience and the purse of students. He aspires to no more than to assist them in their dissections—to do by book, what, as a demonstrator, he has been in the habit of doing by words—to point out to the bewildered neophyte, that *this* is the nervus vagus, or *that* the lingual artery.

We agree with Mr. Cock that such labours, though humble, are useful in their place, and although the chief merits of a work of this description are simple accuracy, and easy method, those merits are not to be despised.

The student, conning a systematic work upon anatomy, is presented with the special description of each tissue, and of every set of vessels, separately, and in regular order. But dissection implies a very different process. Beginning at the superficies he passes to the centre, and finds many parts involved and intricate: nerves, arteries, and veins intersecting each other: and their numerous ramifications to be cleared and comprehended, before he can arrive at their parent trunks. This constitutes the real difficulty to the student in his earlier dissections, and this difficulty Mr. Cock attempts to diminish by the present manual. His plan is thus stated by himself.

"I have followed up the dissection of the head, neck, and chest, by dividing it into regional portions, each forming a distinct section of the work, commencing with the subcutaneous structures, and proceeding to those which are more deeply seated.

In carrying out this plan, I have constantly held one main object in view; that of rendering the description of the vessels and nerves, as continuous, and as little disjointed, as was compatible with the possibility of bringing them all successively under inspection: and without entering into prolix description or minute anatomical detail, I have endeavoured to afford an easy and efficient plan of dissection, and to enable the student to employ his time and labour to the greatest advantage.

It may be asked why I have limited myself to the description of vessels and nerves, excluding the bones and muscles, a knowledge of which is equally important to the surgeon. I answer, that I was unwilling to increase the size, and consequently add to the expense of this work, by treating of subjects which have been so ably handled by other authors, as to leave little room for improvement either in arrangement or description. I have only attempted to fill up a deficiency where I conceived it to exist, and to supply what I considered to be a desideratum to the dissector. How far I have succeeded my readers must decide; but experience renders me confident in the expectation, that, by the method and order recommended in this work, the student will have the advantage of seeing every important part contained in the head, neck, and chest, during the dissection of a single subject; and, though he may sometimes feel disappointed, at leaving for a time a nerve or vessel which he has traced through a certain portion of its course, he will in the end be amply repaid by the economy thus insured in the materials of his labor, and the opportunity afforded of studying each part in its natural position, in relation to surrounding structures."

We have glanced at the contents of the volume, and its execution seems to be respectable. The arrangement is not more complicated than necessary, and the descriptions are tolerably clear. No doubt it will assist both dissector and demonstrator, and form an acceptable companion to the student in his first attempts.

Manuals are by no means so popular as they were, even a few years ago. Both teachers and pupils have discovered that these short cuts to knowledge are apt to lead them a great way round. They have found that it is a farce, at-

tempting to make minute anatomy very easy. It is a vast collection of facts, and it is as absurd to think of simplifying it very much, as to propose to facilitate in any great degree the acquisition of the multiplication table. The best manual of anatomy is that which does no more than convey its minutiæ in a natural order, and in perspicuous language. With those who are really anxious to become good anatomists, the work of M. Cloquet is, after all, more popular than any system or any manual that has yet been published. M. Cloquet's work might itself be simplified. The descriptions are at times involved, and frequently unnecessarily prolix. But their method and exactness more than counterbalance these disadvantages, and those who have once habituated themselves to M. Cloquet's style, are not likely to abandon his pages for any with which we have yet become acquainted.

III. COMPENDIUM OF THE LIGAMENTS; Illustrated by Wood-cuts, &c. with an Outline of the Dislocations, Fractures, Physiology, and Pathology. By A. M'NAB, jun. &c. 12mo, pp. 86.

This is a manual of a class which is nearly extinct—a manual which comprises anatomy, physiology, pathology and treatment. We doubt whether Mr. M'Nab is not too late in the field. However he may have satisfied himself of the necessity of such a production, we fear that he has yet to satisfy the public.

On turning over the pages, we see little to recommend. The descriptions are by no means good, and the wood-cuts are wretched. They are admirably calculated to confuse the student, both in what they attempt, and what they omit to shew. Mr. M'Nab's purse is likely to remain as empty as some of the bursæ mucosæ that he mentions.

IV. THE SURGEON'S PRACTICAL GUIDE IN DRESSING, AND IN THE METHODIC APPLICATION OF BANDAGES. Illustrated by numerous Engravings. By THOMAS CUTLER, M.D. Late Staff-Surgeon in the Belgian Army. 12mo. pp. 195.

The object of this unpretending, but really meritorious little work, is thus stated by the author in his preface.

"The work is divided into two parts: the first treating of Dressings and Bandages in general, and the principles of their application; the second, of Bandages in particular, classed according to the regions of the body, under the respective heads of Bandages of the Head and Neck, of the Trunk, of the Upper, and of the Lower Extremities. Each Bandage is moreover subdivided into its Composition, its Application, and its Use, particular observations being added as occasion may have required.

Throughout the whole work, which is illustrated in various parts by wood-cuts carefully executed by Messrs. Bagg and Son, the Author has endeavoured to render the details as brief as possible, without the sacrifice of either clearness or exactitude. He has drawn the materials necessary to its execution from practice, from personal observation in the British and Continental Hospitals, and from the works of the most distinguished writers upon Surgery generally, or upon this department in particular of the science; introducing nothing but what has appeared to him decidedly useful, he has still allowed for cases of great consequence an ample choice of means."

As a sample of what the contents of the volume are, we may select the heads of the matters treated of in the section on the Bandages of the Head and Neck. They are enumerated thus:—HEAD. 1, Head-band; 2, Triangular Bandage of the Head; 3, Four-Tailed Bandage of the Head; 4, Six-Tailed Bandage; 5, Capelina; 6, T Bandage of the Head; 7, Nodose Bandage.—FACE. 8, Double T Bandage of the Nose; 9, Another Bandage for the Nose; 10, Monocle; 11, Bandage for the Hare-lip Operation; 12, M. Thillaye's Bandage for the same; 13, Four-Tailed Bandage of the Chin; 14, Chevaster; 15, Bandage for Fracture of the Lower

Jaw, with Splint; 16, Mr. Lonsdale's Apparatus for the same.—Neck. 17, Bandage for Transverse Wounds of the Neck; 18, Bandage for Burns on the Fore Part of the Neck; 19, Bandage for Bleeding at the Jugular Vein; 20, Bandage for Wry-neck; 21, Professor Jörg's Apparatus for the same.

Our young friends may perceive how many things are told them, which they do not readily get in systematic works, nor, indeed, in lectures. We think Mr. Cutler's book deserving of encouragement on the part of pupils, and we strongly advise them to purchase it. There is a great deal of useful information in it—the woodcuts are numerous and intelligible—and the price of the work is moderate.*

V. A Series of Anatomical Plates. By Jones Quain, M.D. &c. First and Second Supplementary Fasciculi, and Fasciculi 30, 31, 32, and 33.

The supplementary fasciculi of this very deserving system of plates are dedicated to the display of the muscles, the division exhibiting the anatomy of which must now be considered as completed. On looking at it, we must admit that many of the lithographs are executed very cleverly, while some are inferior in point of clearness, and indeed of execution. These plates are, on the whole, much superior, as a system, to any that have been hitherto published in this country, and, taking their price and other circumstances into the account, they must be considered as a cheap and valuable acquisition to the anatomical student.

It is, perhaps, to be regretted that, whilst Mr. Quain was publishing a series of plates, he did not endeavour to render them more extensive and complete. With the utmost disposition to regard them with a favourable eye, they cannot be considered a national work—they cannot be put in competition with the plates of M. Bourgery, now in course of publication. We are convinced that a system of anatomical plates, on a much more extensive plan, and of a much more elaborate character than those before us, would be favourably received and widely patronized.

The four fasciculi, from 30 to 33 inclusive of them both, are appropriated to the delineation of the arteries. The thoracic and abdominal aorta, and the branches of the latter, are displayed. The drawings are very distinct, and the lithography equally clear.

We have often recommended the anatomical student to make himself the possessor of this work. As it proceeds, we may say, honestly, that our good opinion of it increases.

VI. The Clinique Medicale; or Reports of Medical Cases. By G. Andral, MD. &c. Condensed and translated, &c. by D. Spillan, M.D. &c. Part IV. containing Diseases of the Abdomen.

The present part of this valuable translation contains the diseases of the abdomen. It is essentially devoted to the pathology of fever.

M. Andral, after giving what may be called the history of fevers, considers, seriatim, the alterations found in the digestive tube—the circulatory apparatus—the respiratory apparatus—the apparatus of the secretions—the apparatus of the life of relation—and, finally, he offers some remarks on the different modes of treatment.

The present translation of M. Andral's valuable volumes is likely to prove very useful to practitioners in this country. The wide scope and philosophical exactness of the original work, rendered thus familiar to the body of the profession here, will tend to enlarge their views, and elevate them from the level of routine prescribers for symptoms, to which many are too apt to sink. We recommend Dr. Spillan's translation to the attention of our readers.

* The price is 6*s.* 6*d.*

VII. MANUEL DE MÉDECINE OPÉRATOIRE, &c. Par J. F. MALGAIGNE, Docteur en Médecine de la Faculté de Paris, &c. Paris, Baillière. 18mo. prix 6 francs.

This appears to us to be one of the most complete manuals of operative surgery that we have yet seen. It possesses a merit, which, for a manual of this description, is an useful one—it is portable, and not so frightfully voluminous as the work of M. Velpeau. The latter is well adapted for reference—this for use. Being the latest, it comprises the last proposals and inventions in the art of operating. It contains, too, chapters on the operations required for the teeth—on lithotrity—on chiropodism—on the operations required for the eye and ear.

From the very superficial glance we have been enabled to bestow upon the volume, it seems to be carefully and judiciously executed; and, on the whole, we should say that it is superior to any of the small works we have seen, and more convenient for use than the large.

II.

Spirit of the Foreign Periodicals, &c.

HINTS RESPECTING THE CHANGES WHICH THE URINE UNDERGOES IN DISEASE, AND THE THERAPEUTIC INDICATIONS TO BE DERIVED FROM THESE CHANGES.

When we consider that the chief, nay rather the sole and exclusive end, which the urinary secretion serves in the animal economy, is to carry off the effete and foreign matters of the system, and thus to purify the blood, (and if the blood, then every part, solid as well as fluid, of the living machine), we are prepared to expect that a right condition of this function must be necessary to the continuance of health, and that all deviations from health will probably be accompanied with some derangement of the qualities of the urine.

There was a time when the study of this fluid in diseases was carried to an extravagant extent; when doctors pretended to divine not only the type or general character, but even the exact seat of existing diseases, by merely inspecting the urine, and when they founded their treatment solely on the data furnished by such an examination. This, like every other exclusive and one-sided method of pathological inquiry, must of a necessity be erroneous, and has long been obsolete. We believe that there is only one lineal descendant of the "urine-doctors" now existing, in the person of a noted quack in some part of this huge metropolis, who has for many a year reaped a golden harvest from the well known credulity of our countrymen.

That however the study of the changes which the urinary secretion undergoes during diseases, deserves a more studious attention, than of late years has been bestowed upon it, we think will be admitted by all who bear in mind the physiological functions which it fulfils in the animal economy, and the important therapeutic aid, which an examination of its qualities has already afforded in the treatment of calculous disorders. We speak from multiplied experience, when we assure our readers, that in many other disorders, as well as in the calculous, the observation of the properties of the urine will frequently assist them much in determining the appropriate remedies and diet. In the treatment of all fevers, and more especially in the slow protracted or remittent fevers of children and young people, we have observed that the condition of the urine is one of the surest and most steady tests of the persistance, aggravation, or abatement of the masked febrile symp-

toms. The secretion is invariably scanty, deep coloured, and sedimentary, and of a strong smell during the early stages of the disease, while the tongue is furred, the alvine evacuations are unhealthy and offensive, the skin dry, and the pulse hurried and sharp. One of the earliest signs of an abatement of the fever, and one of the surest signs of the recovery of our patient, is the increased flow, and the improved appearance of the urinary discharge. The tongue will be found at the same time to be moist, and beginning to clean; the skin will no longer be harsh as hitherto, but soft and pliant; the pulse may still be rapid, but it will be found to be soft, and compressible; and there will probably be some indication of returning appetite. It may be said, that as the change in the urine is not a precursory, but merely a coincident phenomenon, it cannot afford much assistance in directing the treatment of such a case. This is quite true, and all that we are arguing for is, that the state of the urine deserves to be examined by the physician, as well as the state of other parts, and of other secretions. No sensible practitioner now-a-days omits to ascertain for himself the condition of the alvine evacuations, and he no longer trusts to the vague and incorrect reports of attendants. The benefits which have been derived from this practice are incalculable. Indeed it is downright empiricism to treat many diseases, especially fevers and that host of disorders which are associated together under the convenient appellation of liver complaints, stomach complaints, indigestion, &c. without a frequent examination of the stools; and a little experience will enable the attentive observer to distinguish the abnormal secretions, produced by disease, from those which are induced by the operation of purgative medicines.

Of almost equal importance is the examination of the urine in many of such cases, not only by affording direct indications of the state of the system at the time, but also by enabling us to correct some of the fallacies which exclusive attention to the alvine evacuations is occasionally apt to promote. Whenever the urine is scanty, deep coloured and sedimentary, and the stools are at the same time offensive and discoloured, it is a safe and valuable rule of practice to exhibit aperients conjoined with some of the saline diuretics,* to withhold all strong, greasy, stimulating food and drink, and to employ in their stead light animal broths, farinaceous compounds, and slightly alcaline beverages, by far the best of which is potash, or soda-water. The marked success of the use of these simple expedients in many protracted cases of dyspepsia and general derangement of the whole system, can only be duly appreciated by those who have witnessed or have experienced the speedy relief which they so often afford. In the treatment of such cases the physician will derive the most valuable assistance from a frequent appeal to the state of the urine.

Often indeed he is precluded by many circumstances from ascertaining the condition of the alvine motions, and he is obliged to trust to the misleading reports of his patient, who will assure him of their perfect healthiness, when they are most unnatural; the tongue too at the same time may appear clean and otherwise normal; the appetite may be moderately good or even unusually keen, and the physician may be thus misled by supposing that every thing is going on quite well, and that all the functions are recovering a healthy tone. Such an error may very generally be avoided by a reference to the state of the urinary secretion. Patients are more in the habit of observing the state of their urine, than of their stools; and the medical man may often ascertain the state of the one,

* As a general rule, none is better than a calomel pill taken at bed-time, and the infusum sennæ with tartrate of soda on the following morning. When this draught is not sufficiently active, a few grains of jalap powder added to it, will invariably answer the desired purpose. This combination is certainly one of the best hydragogue purgatives.

when he cannot do that of the other. If the urine be found to be deficient in quantity, of a deep colour, strong offensive smell, if it is cloudy and disposed to separate the uric acid sediment, he may be quite assured that the organs of digestion and chymification are still at fault, and that this fault consists, in nine cases out of ten, in a diseased condition of the intestinal secretions, and probably in an accumulation of unhealthy fæces in some part of the bowels. We admit indeed that this rule, like every other rule of practice, is to be received "cum grano salis." At certain, especially the advanced, periods of life, there is sometimes a very considerable excess of uric acid in the urine, and a strong tendency to its sedimentary deposit; and along with this state of the secretion, the quantity of it may be greatly diminished, and yet no decided derangement of the general health may be the consequence; but such an occurrence is only occasional even in old age, and certainly it is of extreme rarity in youth and middle age.

The diseases, in which the changes alluded to of the urinary secretion are most conspicuous, and in the treatment of which we have derived the most obvious advantages from attending to these changes, are the various forms of indigestion, in all obstinate non-inflammatory intestinal disorders, in gout, and some of the varieties of chronic rheumatism, in asthma and in cutaneous affections.

In cases of obstinate dyspepsia, the urine is never quite healthy, at least for any considerable length of time. When it is deranged, the alteration very generally consists in an excess of the uric or lithic acid.

We have, times out of number, remarked that after every aggravation of the stomach ailments, however slight and neglected, the state of the urine was almost invariably more disturbed than it had been immediately before the aggravation; and thus from merely examining the urine, we have often been able to predicate our patient's condition, before making a single inquiry. In this way too we are often enabled to judge of the beneficial effects of the medicines and the diet which we may have prescribed; and we are thus furnished with at least one method of shrewdly suspecting whether our prescriptions have been faithfully obeyed or not. It is to be kept in mind that in the cases, to which our present remarks refer, we are supposing that the state of the urine has been deranged for a considerable length of time.

The merely occasional alterations of this excretion, although deserving of attention as indicative of some stomach or intestinal annoyance, seldom demand professional relief; and when they do, a few doses of an active purgative, with restriction of the diet for a day or two, generally suffice to remove them. The more protracted cases require a nice and delicate management. Practical experience has shewn us that much valuable assistance in the treatment of dyspeptic disorders may be derived from observing the state of the urine. Hitherto there has been far too much of mere empiricism in this department of therapeutics. Medical men have followed no steady nor rational principles in guiding their selection of the appropriate remedies. For example we find among the numerous list of stomachic and antidyspeptic remedies, both acids and alcalis enumerated; and to the best of our recollection, there have never been any directions proposed to assist the medical man, in determining which of these very opposite medicines he should employ in any particular case. One physician may recommend the sulphuric or the muriatic acid, either alone, or in combination with a bitter infusion, while another, under the very same circumstances, will prescribe the carbonate of potash, or of soda, magnesia, or some other alcaline preparation. Now although we are by no means addicted to the chemical reasonings of the older physicians with respect to the operation of all remedies, we really cannot enlarge our credulity so far, as to believe, like the well-meaning Vicar, "that much may be said on both sides of the question" in the present instance of medical incongruity. That acids are excel-

lent remedies in many cases of dyspepsia, we are quite ready to admit; for no one who has employed them with discrimination can possibly be of a different opinion; and the same qualified praise is due to alcaline preparations also; but we cannot for a moment allow that acids and alcalis can be equally useful in the same case, or set of cases.

In the dyspepsia of old, infirm and worn-out constitutions, when there is no gastritic or enteritic affection present, and when the alvine discharges have been brought into as healthy a condition as possible, it will generally be found that the urine is either pale and clear, or that it is ropy and has a tendency to a white chalk-like deposit.

It is in these cases that the use of the mineral acids is so strikingly beneficial: the appetite is improved by their use, the feelings of general comfort are agreeably changed from languor and despondency to comparative strength and cheerfulness, and with these changes the urinary secretion is brought back to a healthy state. On the other hand, whenever the urine is scanty, deep coloured, and deposits the lateritious sediment, as is very generally the case in the dyspepsia of younger and more robust persons, the use of acids is improper, and advantage will almost certainly be derived from the judicious use of alcaline remedies.

In order that the diagnosis of the chemical changes of the urine may be more correct, the employment of litmus and turmeric paper, as a means of testing its acidity or alcalinity, ought never to be neglected.*

The increased acidity is, it is well known, coincident with the deposition of the red lateritious sediment; and the diminished acidity, with the deposition of the white sediment. These few hints will be sufficient to explain our views of the importance of attending to the state of the urine in dyspeptic complaints: they may possibly excite a train of enquiry on the part of the scientific reader. Hitherto we have spoken only of dyspepsia; but the remarks which have been made in reference to this disease, are strictly applicable to gouty and rheumatic complaints, and to many cases of asthma, and also of cutaneous disease. In truth dyspepsia is almost always an adjunct, nay sometimes it is the actual cause of these very disorders; and hence on the successful treatment of the stomach and bowel affections, will the cure of the more prominent illness be often found to depend.

When the symptoms of indigestion are well marked, as is usually the case in gout and often in asthma, the attention of the physician is necessarily attracted to the state of the stomach, and he is thus fortunately led to employ the appropriate remedies.

It may be worth while to notice here a fact, which in a certain degree seems to indicate some connexion, or at least co-existence of gouty indisposition with irregularities of the urinary secretion, that the very remedy which has so deservedly acquired great repute for the cure of the gout has a marked influence on the state of the urine, by increasing the quantity of its uric acid. How it effects this, we do not presume to say; but we believe that it is very generally admitted by writers on the materia medica that, while the system is under the influence of colchicum, there is an unusual quantity of the uric acid contained in the urine.

In cases of asthma, the paroxysm is often preceded and accompanied by a marked diminution in the quantity of the urine; as the paroxysm abates, the quantity of the urine gradually increases, and it is at the same time usually high-coloured and deposits a large quantity of red sediment. How often it is that a fit of asthma appears to terminate in a copious diuresis!

The other forms of subacute disease in which we have observed that the urine is very generally deranged, are chronic rheumatism and many skin

* Litmus paper is reddened by acid, and is not affected by alcaline urine; turmeric paper is stained brown by alcaline, and is not affected by acid urine.

complaints. We are the more anxious to direct the reader's attention to these, because hitherto the state of the urinary secretion has been so much neglected in the descriptions of modern writers.

That there are many cases of chronic rheumatism and of skin disease in which the urine is never, or is only casually abnormal, is quite true; but as the reverse of this position is as often so, it is the duty of the wise physician to observe the state of this important secretion in all cases without exception. In chronic rheumatism, especially when the pains are erratic, and when the constitution of the patient is what is usually termed "bilious," it will be found that the urine seldom remains for any length of time healthy in quantity and quality, and that almost invariably whenever the pains are most severe, the changes in the urine are most conspicuous.

The intestinal secretions may be disturbed at the same time; and even when they are not very sensibly so, we may be still assured that the stomach and bowels are at least prone to occasional derangements. There is an error which those medical men, who regard the vigour of the appetite as not an unfair criterion of the energies of the stomach, are apt to fall into; it is that of giving their patients a carte-blanche to eat of whatever food, they believe, does not disagree with them. Now in not a few instances of indigestion, such an agreeable permission is decidedly injudicious. Often, very often, the appetite is as strong, or even stronger than in ordinary health, and yet the digestive and assimilating powers of the stomach and bowels are unquestionably weak and depraved: otherwise how should the body become emaciated and enfeebled, while abundance of nutriment is taken, and the digestion is *apparently* healthy. At the present moment we have two cases under treatment, which illustrate these positions admirably well. A military officer had, at the period of our first visit, been laid up for four months with a most troublesome rheumatic affection of the hip-joint. The affection was deemed rheumatic in consequence of his having repeatedly suffered from similar attacks in other joints, and of the pain and local distress being greatly influenced by atmospheric changes. He had been under the treatment of an hospital surgeon of this metropolis from the commencement of his illness. Caustic issues had been made over different parts of the joint, and an occasional purgative with colchicum administered; but as the general health of the patient seemed to be not all affected, his appetite being good, and the bowels acting regularly, little regard had been paid to constitutional remedies.

As the local malady however seemed to be as obstinate as ever, he requested me to give him my opinion of his case. Upon enquiring of him what was the state of the urine, he told me that he had never noticed it. I found that it was scanty, deep coloured, and that on resting it deposited a quantity of lateritious sediment. The alvine evacuations also were darker, and decidedly more offensive than in health. By the use of purgatives first, and then of alcalis combined with colchicum, and by the appropriate regulation of his diet, this gentleman's health was speedily improved; and afterwards by the exhibition of small doses of the corrosive sublimate, so as to affect the system with the mercurial action gently, the cure was made complete.

The other case is still more apposite. A middle-aged gentleman, of a phlegmatic bilious constitution, and rather addicted to the pleasures of the table, had for four years suffered from general derangement of his health. He was subject to violent headaches, to severe wandering pains affecting chiefly the thighs, legs and feet, and lasting usually from six to twelve hours, to occasional attacks of syncope, and to universal languor and depression. His complexion was muddy and every now and then he looked half-jaundiced.—His appetite however was always vigorous, and often quite craving. His bowels acted, he said, regularly, and as to his urine he had paid no attention to it. He had been treated by at least a dozen doctors in London, he had visited also some of the fashionable

watering places, and we may therefore suppose, a multitude of remedies had been tried.

I was surprised to hear that not one of his medical attendants had ever taken the trouble to ascertain for themselves the state of the alvine and urinary secretions.

On examination the stools, after the operation of an active purgative, were found to be of a dark green colour, slimy, very fetid; and the urine was small in quantity and very sedimentary. The use of purgatives was persevered in steadily for several days, until the motions became of a healthier aspect, and had lost their extreme offensiveness. He then took alcalis combined with colchicum for two or three weeks, and all malt liquors, acid wines, greasy, and oppressive food were interdicted. The quantity of the urine was thereby greatly increased and it became gradually quite clear.

By a few simple instructions which I had given him, he was readily able to judge for himself of the healthiness or unhealthiness of the stools and urine; and he soon discovered that invariably after each attack of pain the urine was thick and deposited a lateritious sediment, and that whenever the appearance of the stools deviated from health, his feelings of general malaise were always more decided. The treatment throughout was simple and ultimately efficacious. Pills consisting of equal parts of extract. colocynth. c., the extract. colchici, and of pil. hydrargyri, were taken every, or every second, night; and minute doses of the oxymuriate of mercury dissolved in the compound tincture of cinnamon were taken twice daily for three or four weeks at a time; then omitted for some days, and again resumed.

This treatment will be found admirably suited to such cases, provided the bowels and kidneys have been previously brought into a healthy condition, and all occasional irregularities are immediately corrected. As to diet, the lighter foods must be preferred; and as to drinks, none assuredly is so good as soda or potash water, either alone or with small quantities of old sherry wine, or of brandy, or hollands.

Our limits prevent us from discussing at present the connexion between cutaneous diseases and irregularities of the urine. Our readers will find a few remarks on this highly important and much neglected subject, in our review of Rayer's great work in the number for last October.

In all cases of skin disease, and especially in those of a chronic nature, the urine ought to be examined and tested. We may be quite assured that the functions of the skin are never performed quite healthily, when the urinary secretion is depraved.

We are not provided with sufficient data to authorize us in laying down any very definite instructions, derivable from the condition of the urine, to guide the physician in the treatment of cutaneous diseases. The subject is one of great therapeutic interest, and we therefore earnestly invite all dermatologists to investigate it with attention. Perhaps there is not a class of diseases, in the cure of which our remedies are more frequently nugatory, than in those which appertain to the skin. Many improvements have been of late years introduced, and the medical man is on the whole not so much embarrassed and so often baffled as he was wont to be; but still cases, apparently the most simple, and involving no structural changes of the skin, as lichen, prurigo, eczema, &c., are occurring every day, where the ordinarily-recommended remedies are utterly impotent. It is quite probable that a more accurate knowledge of the chemical state of some of the excretions might lead to a more uniformly successful practice.

Before quitting the subject which has engaged us in the preceding pages, it may be useful briefly to allude to some of the more obvious and remarkable changes in the urine, which are indicative of, or at least attend certain other morbid states of the body. In hysteria and in all diseases dependent upon undue excitability of the nervous system, the urine is very usually much increased in quantity, and it is at the same time exceedingly pale and limpid. This condition of the urine is common also in the climacteric decay of the body, as old age comes on. The kid-

ney is in many such cases the organ which is soonest and most distinctly affected; and hence whenever we find that the vital and animal energies are becoming gradually more and more enfeebled, without any apparent cause or local suffering, the state of the urinary secretion should be assiduously watched. Diabetes insipidus is very frequently the forerunner of a general "breaking up" of the system. Even at the earlier periods of life, especially when the constitution has been enfeebled by irregularities in living, by debauchery, excess of venery, over-violent exercise, &c. an increased flow of the urine (in such cases it very frequently contains a larger quantity of solid ingredients, than in health) precedes and indeed causes an irremediable exhaustion of the powers of life. As a general remark, we should advise the medical man to have his attention directed to the urinary secretion, whenever there is a gradual and increasing emaciation of the body without any prominent existing malady.

That state of the urine which has been denominated the phosphatic state, in which there is a greater or less tendency to the deposition of the phosphates of lime and of magnesia, and in which there is a corresponding deficiency of the uric acid, is of frequent occurrence in scrofulous unhealthy children, especially whenever any mesenteric disease is present; also in advanced age, if the powers of digestion and of assimilation are enfeebled or depraved; in hemiplegia and after all severe accidents to the spine; and lastly, in all chronic diseases of the kidneys and bladder.

Albuminous urine, if it has been of long duration, is usually symptomatic of some visceral disease, more especially of disease of the kidney (dropsy being frequently the consequence), and also, although less frequently, of the liver. Occasionally it is found to be coexistent with merely temporary derangements of the digestive and respiratory functions, when no organic mischief is present in any part. In the dropsy which succeeds to scarlatina, and in all dropsies when the effusion has been preceded by inflammation of the respiratory organs, or when there is co-existent disease of the heart, the urine is often albuminous.

Although this state of the urine, therefore, may unquestionably exist without organic disease of the kidneys being present, yet when it has continued for a considerable length of time, and the system is gradually decaying, and yet does not manifest symptoms of inflammatory distress, there are strong grounds to excite the suspicions of the physician as to the state of the kidneys, whether dropsical symptoms be present or not. The late Dr. Darwall seems to have been of opinion that the coagulability of the urine is not often dependent upon that form of organic disease of the kidneys (which, it has been proved by the researches of Drs. Bright, Christison, Gregory and others, is so frequently accompanied by dropsical effusions), but rather upon some previous or coexistent disturbance of the respiratory functions; and he suggests that the changes in its chemical properties is probably owing to the blood which is conveyed to the renal organs, having been imperfectly changed and purified during its passage through the lungs, in consequence of the partial obstruction or impediment to their free play from disease, either of their own texture, or of the heart. The opinion of Dr. Blackall, that a coagulable state of the urine is indicative of inflammatory action, and therefore demands the use of antiphlogistic treatment, is only partially and occasionally true. Dr. Bright and other practical physicians have recorded several cases of dropsy in which the urine was coagulable, and in which nevertheless steel and other tonics proved decidedly useful. The urine has been often observed to become coagulable, when the system has been affected with mercury. From all these considerations we are led to agree with the opinion of that excellent chemist Dr. Prout, who, in speaking of the value of the coagulability of the urine as a means of diagnosis, remarks, that we ought always to be aware of its presence, as taken along with other symptoms it may be occasionally useful in directing our judgment of the nature of the disease,

but that, in the present state of our knowledge, it does not indicate any particular remedy, or mode of treatment.

To detect the presence of albumen in urine, we have recourse either to boiling, to nitric acid, to the ferrocyanate of potash (adding previously a few drops of acitic acid) or to corrosive sublimate.

As we are at present on the subject of the analysis of the fluids in disease, we are tempted to introduce a few cursory remarks from a short work recently published by Mr. Rees. He mentions that Dr. Marcet found in the blood of a diabetic patient so much fat, that the serum was like an emulsion in appearance and deposited a substance like cream: it putrefied very quickly.

The foreign principles occasionally detected in the blood are urea (in cholera and in some sorts of dropsy attended with a coagulable state of the urine); cholesterine and the colouring matter of the bile (in jaundice and some other diseases); perhaps also sugar and free carbon: but the presence of these two last are of more doubtful authenticity. M. Lecanu has shewn that the serum of the blood in cases of jaundice contains occasionally the following abnormal ingredients: a combination of albumen and soda, scarcely at all soluble in water; an orange yellow colouring principle; and a blue colouring principle. These colouring principles exist normally in the bile.

The yellow serum of the blood in cases of jaundice may be tested for bile by adding dilute sulphuric acid to it:—the colour is changed after a few minutes to a delicate green colour.

In reference to the changes of the urine, it may be worth while adding to what has already been stated, that any vegetable colouring matter, which may happen to exist in this fluid, is readily detected by adding caustic potash:—the urine immediately assumes a green colour. Mr. Rees mentions a case of suspected hæmaturia: the dark red colour was owing however to the urine being tinged with beet-root, which the patient had eaten in a salad.

Mr. Rees gives the following instructions to discover the pressure of iodine in urine. Evaporate the urine to dryness; dissolve the residue in distilled water and filter the solution; then add one eighth part of strong sulphuric acid. By adding now a solution of starch, the rich blue colour is immediately manifested. The presence of iodine may frequently be detected by simply mixing the urine to be tested with one eighth part of the strong sulphuric acid, and then suspending over the fluid a piece of blotting paper which has had a solution of starch dried upon it.

Dr. A. T. Thomson has recently suggested the following improvement of the process to detect iodine or any of its preparations in urine or in any other fluid. To the fluid to be examined add a small quantity of the solution of starch, and then a few drops of nitro-muriatic, or of nitrous acid. The blue colour is immediately manifested. We must be careful not to add too much of the acid, as an excess will at once dissolve the blue precipitate. Dr. T. mentions, that by this simple process he has detected the presence of iodine in the urine, the saliva, the matter of perspiration, as well as in tea, malt-liquors, &c.

Detection of Sulphate of Quinine in Urine.

M. Piorry, one of the Clinical physicians of the Hôtel Dieu, has published the following novel observations on this subject. "Finding that the urine of patients who were taking quinine was sensibly bitter, I requested M. M. Vallée and Fermond to analyse it. The subjoined is their report. The urine of several patients, who had taken about half an hour previously a large dose of quinine, we acidulated with diluted sulphuric acid, and then evaporated the fluid to three-fourths of its original quantity. When cool, it was filtered, and then treated with quick-lime in powder, in order to decompose the sulphate of quinine and reduce it to the state of the simple alcaloid, which was

precipitated along with the insoluble sulphate of lime. The precipitate collected on a filter was well washed, then dried and reduced to a fine powder. This powder was treated with alcohol, and allowed to digest for twenty-four hours: it was then filtered and evaporated, and the residue was treated with water accidulated with sulphuric acid: the solution gradually deposited a crystallised sulphate of quinine, which was readily recognisable by its well-known characters."—*Bulletin Clinique.*

OBSERVATIONS ON SOME OF THE FORMS OF MONOMANIA.

To M. M. Pinel, Esquirol and Georget is due the great merit of having first clearly illustrated that very melancholy form of insanity, in which the mind is the victim of one particular delusion, or of one inordinate and extravagant passion or propensity, retaining its other intellectual capacities and moral emotions intact or nearly so. Of this partial insanity, to which M. Esquirol gave the name of monomania, there are two sorts or varieties,—according as the disorder is, or is not, attended with a disturbance of the judgment or reasoning principle. These two varieties have been distinguished by the appellations, "monomanie raisonnante," and "monomanie instinctive." The propriety of this distinction has been recognized by the greater number of recent medical jurists of Germany. M. Henke, who has hitherto denied the existence of an instinctive monomania in its full and absolute sense, assents however to all the facts which have been reported by authors as indicative of a special disease or insanity of the *will;* he admits that the patients in certain cases have not retained their freedom of agency, and could not therefore be regarded as responsible for their actions; "but," says he, "we recognize in this abnormal or morbid state of the affective faculties (the moral or active powers of English metaphysicians—*Rev.*) and of the will, only the antecedent condition (point de depart) of that derangement of the intellect or reason which occurs at the moment of perpetrating the deed,—a derangement which alone can excuse the violences to which the unhappy patients are sometimes driven. What distinguishes man, as a moral being, from the brute animals is, that he possesses a reasoning principle capable of regulating the instinctive impulses and the depraved desires which may spring up in his bosom: as long as this reasoning principle is not perverted or abolished, man must be considered as a responsible agent, whatever be the violence or intensity of the emotion which leads him to commit a criminal action.

If we observe men of a mild humane disposition and virtuous principles induced to commit the most extraordinary violences, such as attempting to murder their dearest friends or relatives, it is impossible not to believe that, in the moment of the act at least, there was some disturbance or derangement of the reasoning powers, although the patients immediately before and after the deed appeared to retain them in their full integrity."

M. Henke appeals to the doctrines of M. Esquirol in support of these views; but it appears to us that he has not quite correctly understood M. Esquirol's sentiments on this subject. M. E. does not restrict, as M. Henke supposes, the appellation "monomania" to a partial hallucination (delire) produced by a dominant and exclusive idea; but comprehends under this term also that form of insanity, in which no mental hallucination at all exists, but where the will alone is enthralled and subverted by an excessive and unconquerable feeling or emotion. In treating of the homicidal monomania, he says that there are two forms of it. In the one, the propensity to murder is provoked by a delusion of the reason arising, it may be, from a supposed insult or grievance, from a dread of personal injury and therefore in self-defence, or from misguided patriotic or religious convictions; whereas in the other we observe no appreciable disturbance of the intellect; the miserable person being led captive by a mere

blind instinct, a *something* indefinable, which goads him on to murder and destroy. The former is the "monomanie raisonnante" and the latter is the "monomanie instinctive" of the French authors.

M. Amelung seems to have adopted the views of M. Henke in reference to monomania, and he is therefore unwilling to recognise the propriety of admitting an instinctive form of this insanity. He thinks that, in all such cases, the reason or judgment is positively and essentially deranged at the moment of committing any crime.

M. Hartmann entertains rather different sentiments. He says: "In the mania without delirium or mental hallucination, it is not from any illusory dreams of the imagination that the person is goaded on to the commission of insensate acts; but rather from certain diseased sensations, which have seized upon the mind, absorbing all its attention and preventing it from reflection upon any of its other relations. In this manner the reason, without being deranged or perverted, is, as it were, overpowered for a certain period."

Whichever view we take of this question, whether we suppose that there is necessarily an actual and positive derangement of the intellect or not, all medical jurists in Germany assent to the truth of the position, that "the will and the affective faculties may be so disturbed, as to induce, either directly, or indirectly by a temporary derangement of the reason, an entire abolition of the moral liberty, or free agency." It is upon this fundamental position that rests the modern doctrine of medical jurisprudence, relative to that form of monomania which has been designated the "instinctive." The essential point of this doctrine is the admission, that the moral liberty may be destroyed, not only by primary lesion of the intellectual or reasoning powers, but also by a special lesion of the mere affective or moral powers, while the reason *appears* to remain unaffected. We need scarcely say that this doctrine may be carried to a most unjustifiable extent by cunning and unprincipled men, and may be abused to the vile purpose of apologising for crime, and of exculpating the most profligate villains. It is of the highest consequence therefore to study this subject with the most conscientious attention, and endeavour to discover if there are any marks or tests which may enable us to distinguish the monomaniac from the responsible criminal. We propose, at the present time, to notice briefly the phenomena, physical as well as moral, which the German authors have observed in monomaniac patients, and afterwards to point out the relative value and importance which ought to be attached to these phenomena, as signs of the mental disease.

The persons in whom instinctive monomania has been most frequently observed are nervous, hysterical women, or those who have been recently delivered; hypochondriac, epileptic men; and lastly youths of either sex about the period of puberty. The patients exhibit almost invariably a more or less obvious degree of intestinal disorder, characterised chiefly by a constipated state of the bowels, and connected no doubt with an inactivity and tendency to congestion of the abdominal circulation. Very frequently there is a hæmorrhoidal disposition; the patient is subject to head-aches, and to other cerebral annoyances, as noises in the ears, dizziness, inaptitude for prolonged mental exercise, &c. and often he suffers much from a sense of uneasiness in the epigastric region. All these distressing feelings are aggravated by the sight, or even by the mere idea of the object of the monomaniac delusion. The sight of a knife, or stick, or firebrand is sometimes sufficient to bring on an ungovernable propensity to some act of mischief. The disorders observed in the psychological or mental functions are often quite as obvious as those in the body. The person is more or less gloomy and melancholy; he is quite conscious of his criminal propensity to stealing for example, or to murder, or to incendiarism, and yet he feels impelled on to their commission. At

times he is so sensible of his unhappy condition, as to implore his attendants to withdraw every weapon of offence from within his reach. The gloom often finds relief for a time in bitter lamentations and weeping; and this frequently excites surprise in his friends, as they are perhaps not aware of the dreadful struggles of mind which the poor sufferer experiences.

Hitherto the reason has perhaps maintained the ascendancy: the vicious propensity is rejected with horror, and the patient, aware of his lamentable position, strives to extricate himself from it.

For example, a mother intrusts to the care of a stranger the child whom she tenderly loves. But, strange to say, the very dread which she entertains of her own possible actions, instead of weakening, often seems rather to exasperate her murderous propensity. She tries to reason with herself on the awful crime she meditates; perhaps she rushes to the altar of her God, and there implores divine grace to deliver her from the slavery of her passion, or she takes a distant voyage, to remove her from every chance of submitting to its power. Sometimes, however, in spite of all these efforts, the mischievous feeling becomes stronger and stronger; the idea of murder returns every moment with fresh energy, leaving her not a moment of repose, and the struggle between virtuous horror and the overpowering inclination becomes more and more painful.

If, at this unhappy moment, the object of her monomania is within her reach, the ferocious instinct, which neither reason, nor love, nor religion can control, may burst out with violence, and lead her on to the perpetration of the most dreadful enormity—the murder of her own offspring. The following case is reported by Wildberg, one of the most distinguished medical jurists of Germany. The patient was a gentleman, 51 years of age, of the most estimable character, and of high mental endowments. He was of a bilious nervous temperament, and had for a great number of years been subject to abdominal complaints, and to frequent and protracted headaches, owing, it would seem, to general venous plethora. His mind and temper were naturally lively and active, but he had become of late more and more hypochondriac, and the tendency to gloom had been aggravated by several domestic calamities. His literary occupations were now a source of annoyance and pain to him, and his restless anxiety was sometimes quite insupportable to his feelings. His eldest daughter, a girl 17 years of age, had been hitherto his greatest comfort and delight, and often would he request her to accompany him in his walks, that her cheerful conversation might dissipate his gloomy thoughts. One day, when this beloved child visited him in his study, the horrible thought of murdering her came into his mind. He was so dreadfully alarmed himself that he instantly told her to leave the room. When left alone, he wept bitterly, and it was long before his mind became tranquil. He resolved to take a short trip into the country, to compose his feelings, and to withdraw himself from the society of his daughter. Gloomy thoughts were in a great measure dissipated by this recreation, and he returned home more quiet; but no sooner did he see his child again, than the savage desire began to haunt him, and, in spite of the most painful struggles to resist its impulses, it increased in violence every day. M. Wildberg being consulted, strongly advised a separation of the daughter from her father's house, and recommended him a course of deobstruent purgative and antispasmodic medicines. In the course of a fortnight, this gentleman's health was very decidedly improved. His appetite returned, his sleep became quiet and refreshing, he felt altogether lighter and more comfortable, and his "moral" was greatly tranquillized. Occasionally he still felt a tendency to gloom and despondency, which, however, passed away in the course of a few minutes, and he would then join as freely as ever in the conversation of his friends. The same regimen was persevered in for another fortnight, and some tonic medicines were afterwards administered. The patient recovered a state of perfect

health, and when his daughter was introduced to his presence, his joy, although chequered with the remembrance of his former feelings, exhibited all the ecstasies of a parent's fondness. Fortunately there was no subsequent relapse of the moral disease.

We now proceed to consider another feature of monomania; viz. the state of mind of the person immediately after the commission of any heinous act. The solution of this question is often of great importance in legal medicine. We may premise that the instinctive form of homicidal monomania, although its existence is now almost universally recognized, has very rarely led to the perpetration of murder. In the greater number of cases where murder has been committed during insanity, the mind of the person has been under the unhappy influence of a partial delirium, or specific hallucination, arising from some false or absurd idea which occupied the mind. These, therefore, were cases of "monomanie raisonnante," and not of "m. instinctive." Not so, however, with the incendiary monomania, which, 'per se,' has very frequently led to the commission of arson; the motive or impulse being merely a strong ungovernable propensity or instinct, and quite unconnected with any delusion of the intellect. In treating, therefore, of the state of mind in instinctive monomania, immediately after the perpetration of an offence, we shall have reference chiefly to cases of incendiary madness.

No sooner is the deed accomplished, than a calm succeeds to the state of violent agitation, such as we have described above. The unhappy person feels himself relieved, as it were, of a burden, and experiences a degree of comfort (bien-être) utterly unknown to those who have acted with criminal motives. The young incendiary, whose case is recorded by Klein, in the Annales Judiciaires, and by M. Marc, in the Annal. d'Hygiene for 1833, was in a perfect ecstasy of joy when she saw the flames burst forth. Very generally, however, these joyful feelings are only temporary—reflection is awakened, and gloom and remorse then occupy the mind. A young girl of a quiet inoffensive disposition, and whose character had been hitherto exemplary, made seven different attempts at incendiarism, in a village near Cologne. When interrogated as to the motives which had prompted her to act so wickedly, she burst into tears, confessing that, at certain periods, she felt her reason forsake her, and that then she was irresistibly impelled to the commission of a deed, of which, when done, she bitterly repented. She was acquitted by a jury of all criminal intentions.

From what has been now stated, it is easy to draw a very striking difference between such monomaniacs as we have been alluding to, and those who are labouring under a partial delirium or hallucination of the reason: the former very generally repent of the deed to which they have been driven—whereas the latter not only make no attempt to conceal it, but often glory in having committed it.

A much greater difficulty is experienced in attempting to point out any safe principles to guide the medical jurist, in distinguishing instinctive monomania from that state of mind in which a person, being goaded on by merely inordinate vicious propensities, yields to their impulses, and who must, therefore, be considered as responsible for the consequences of his actions. The question is, indeed, a very difficult one, and will often occasion a painful struggle between the compassionate dictates of humanity, and the rigorous demands of offended justice. Perhaps the following remarks may, in some degree at least, assist us in a right discrimination.

The circumstances of age and sex should be diligently noted. Very many incendiaries have been young persons, about the period of puberty, and perhaps, on the whole, girls have been more frequently implicated than boys. If the person has been subject to any nervous disorder, such as hypochondriasis, epilepsy, or hysteria, the medical jurist will bear in mind, that these morbid conditions favour the development of instinctive monomania. The puerperal state appears to have occasionally a similar influence in dis-

turbing the mental functions. If, combined with any of the states now mentioned, there is a disposition to abdominal or cerebral irregularities, such as chronic affections of the intestinal canal, painful or deficient menstruation, headaches, &c. the German writers very properly attach considerable importance to these phenomena in their judicial reports. So much for certain physical or corporeal indispositions, the right appreciation of which should never be neglected in a doubtful case. But the scientific physician will not confine his attention to the consideration of these signs alone; he will also inquire into the morals of the accused; he will endeavour to find out his previous state of mind, his leading propensities and affections, the motives and temptations which may have prompted him to commit the offence, whether it has sprung from revenge, or lust of wealth, or any other sinful passion, and, lastly, the feelings which he displayed immediately and shortly after it was accomplished. In short, he must study "l'homme tout entier," in order to arrive at accurate and satisfactory results. We have not yet alluded to another feature in the case of the monomaniac who may have committed an offence—we mean, the utter want of precaution, either as to time or circumstances, in the execution of it. For example, no rational person would attempt to murder another in the presence of a number of people, nor to set fire to a house in open day, and when there were inmates in it. A girl, 17 years of age, became servant to a M. Becker on the 7th day of February. Strange to say, her master's house was discovered to be on fire several times in the course of a few days, after she began to reside there. The girl was dismissed, in consequence of her master supposing that she was bewitched. Soon afterwards she got a place in another family, and it was not long before she again resorted to her incendiary practices. When charged with the offence, she at once confessed it, and bitterly grieved at the damage and distress she had caused. The judge before whom she was tried very properly decided, that she was the victim of an instinctive monomania.

We propose now to consider briefly the other form of monomania—that in which the mind in occupied with a delusion or hallucination on one particular subject, or set of subjects, while on all other subjects it is perfectly sane. This is the "monomanie raisonnante," or "folie partielle" of the French medical jurists. Of late years, much attention has been paid to this very curious and puzzling theme, and many extraordinary cases of partial insanity have been recorded. We shall select a few from the writings of some of the German authors.

Case 1. A woman, who had for a long time suffered severely from domestic vexations, resolved to put an end to her existence. She had not, however, the fearlessness to commit suicide in a direct manner; but she set fire to a neighbour's house, and immediately confessed the act, in order that she might be apprehended, and condemned to execution. The question arose, whether this woman was to be considered insane or not. Several authors, in similar cases, have thought to determine the existence of monomania, by simply appealing to the very act, which they regard as the most complete proof of positive insanity. But this opinion is objected to, on the ground that the act may be, as in the present case, by no means absurd, either in point of design or of execution, and therefore that the derangement, if such does really exist, belongs rather to the antecedent state of mind which impels the person to self-destruction, than to the period at which the offence is committed.

This was the view of the woman's case taken by the physician who was charged with her examination. From minute inquiries he came to the conclusion, that she had been subject, not indeed to a confirmed monomania, but to gloomy melancholy, which must have interfered with the free exercise of her intellectual functions. He gave it therefore as his opinion, that the extreme rigour of the law should not be

enforced against this woman; but that nevertheless she should be punished severely, as it could not be alleged in her favour that she had acted irrationally, or without premeditation.

Case 2. Platner relates the case of a young man who shot his companion, because he supposed that he was plotting against his life by witchcraft. He was quite well aware that he would be condemned to death; but, said he, "it is a thousand times better to die on the scaffold, than to perish miserably by the artifices of magic." Platner regarded this as a case of genuine monomania, and the propriety of his opinion was assented to by the Faculty of Leipzig.

Case 3. A woman had been long tortured with the most violent jealousy against one of her female servants, who, she suspected, was intriguing with her husband. She resolved to murder her, and with this view she summoned her into a private apartment, where, with the assistance of a man whom she had bribed for the purpose, she attempted to strangle her. Fortunately, the girl made her escape.

Dr. Elwert, who was charged with reporting upon this woman's state of mind, did not attempt to shew that the jealousy, of itself, could be alleged as any apology, or palliation of her offence; but he gave it as his opinion that this passion, indulged in for a length of time, had disturbed the sanity of her mind, and had induced a state of genuine monomania.

Case 4. A woman, who had been long the victim of religious infatuation, murdered her neighbour's child, and justified this atrocity by saying, "that death alone could save the innocent one from the sins and allurements of the world." She was regarded as a monomaniac, and confined in an asylum.

A different opinion was taken of the following case.

Peter Nielsen, a workman, on the 27th April, 1827, drowned his four youngest children, in order, as he said, to save them from the miseries of want and beggary. This man had maintained among all his acquaintances an estimable and good character, and numerous were the witnesses who appeared on his trial to testify in his favour. For some time preceding the awful deed, his affairs had become much embarrassed, and the prospect of his family being reduced to beggary had driven his mind to despair. In this state of mental wretchedness, the thought of murdering his little ones seems to have occurred to him, not once only, but on different occasions, as he had been heard to say—"il faut soustraire les pauvres enfans au malheur qui les menace, en leur donnant la mort, qui est mille fois préferable." Immediately after the perpetration of the deed, Nielsen went to denounce himself before the magistrates, expressing no regret at what he had done. He was tried, and condemned to execution; but this sentence was afterwards commuted for that of imprisonment for life.

We are of opinion that this last case was one of as genuine insanity as any of the preceding. The sanity of the poor man's mind had unquestionably been deranged by the exaggerated apprehensions for the future welfare of his children. We are well aware of the pernicious consequences to which a doctrine founded on these views may occasionally lead, and we know that some writers have attempted to establish the very dangerous maxim, that all violent passions induce a temporary madness, during the excitement of which the individual cannot be regarded as a responsible agent. If, indeed, any strong emotion or passion has occupied the mind for a *great length of time*, it is quite possible that the intellect may become perverted or deranged (as was alleged by Elwert, in one of the cases cited above); but that any sudden paroxysm of feeling can be admitted as an apology for a criminal act, is opposed by every maxim alike of morality and of political justice.

M. Henke, one of the highest authorities on these matters in Germany, very distinctly declares, "that the strong passions may, indeed, abolish the moral

liberty of the person, but that this circumstance, however, does not exonerate the criminal. Man is a being endowed with a reason to point out to him his duties and to regulate and control his passions; and if he wilfully permits that reason to be blinded, it is but fair that he must abide the consequences of his own conduct." M. Henke admits that certain temperaments and states of the system, more especially the bilious and hypochondriac, predispose an individual to fits of extravagant passion, but he rejects all apologies for crime drawn from such considerations, and admits only *positive* disease as a means of justification.

M. Wildberg has expressed similar sentiments. "The medical jurist," says he, "would sacrifice his honour and conscience, if he attempted to excuse a crime by assimilating the delirium of passions, which have subjugated the reason only because they have not been kept within bounds, to a positive derangement of the mind. Those, who are accustomed to observe mankind, will readily acknowledge that habits of irreligion and of giving way to excesses of passion are quite sufficient to lead on to the most dreadful outrages men, who are in perfect possession of their reason."

M. Feuerbach expresses himself thus: "A criminal action, committed in a state of mind which precludes the moral liberty of the individual, ought not to be the less punishable, if the cause which has occasioned this state can be charged to the wilfulness of the offender."

The following propositions embody some of the most important medico-legal doctrines entertained at present in Germany:—

1. There is one form or species of monomania, which primarily springs from and consists in a disease or irregularity of the affective powers, and of the will (monomanie instinctive.)

2. It is still a question of dispute whether the intellect or reason is *necessarily* and *invariably* deranged during the paroxysms of instinctive monomania.

3. Among the accessory signs of instinctive monomania it is proper to attend especially to the corporeal or physical phenomena, which indicate the existence of, or disposition to hypochondriasis, epilepsy, hysteria, and to chronic, abdominal, and cerebral disease.

The puerperal state also, and the changes which the system undergoes at the period of puberty, have a marked influence in predisposing to this species of insanity. The character and habits of the person, the nature of the offence, he may have committed, and the conduct he displays afterwards, should all be duly weighed in our diagnosis of instinctive monomania.

4. The other form of monomania, the "monomanie raisonnante," consists primarily in a delusion or hallucination of the reason, leading often however to an extravagant and incontrollable state of some of the moral powers or emotions. This form of monomania is frequently the precursor of a general insanity affecting all the energies of the mind, intellectual as well as affective.

5. Violent and excessive passions may certainly overwhelm and, as it were, lock up the reasoning faculties for a time; but this temporary insanity must not be assimilated to monomania, which is truly and strictly a diseased state of the mind, beyond the control of the person affected.

6. It is to be remembered however that a genuine monomania may be actually induced by the long-continued or extravagant indulgence of guilty passions. When once the disease is established, the person cannot justly be considered responsible for his actions, however blameworthy he may have been previously in giving way to them.

7. There is a state of mind, characterised by a sort of exaltation or excitement induced partly by unchecked and violent passion, and partly by an incipient insanity. All medical jurists however do not agree in recognizing this condition of mental infirmity.

8. We must not confound with passions which are under the dominion of the reason, certain states of unnatural desire depending upon a real disease of the nervous system, and inducing men-

tal alienation. There are for example certain neuroses of the genital organs, the paroxysms of which diseases are usually complicated with complete mental derangement. Such cases however are very rare, and M. Henke very properly inculcates the necessity of a most conscientious and upright scrupulosity in examining all alleged cases of this nature.

9. It is still a matter of dispute whether in partial insanity the patient ought to be considered responsible for offences, which seem to be quite unconnected with the objects of his delusion.—*Annales d'Hygiene et de Medecine Legale.*

Remarks on the State of Medical Doctrine in France—Endermic Treatment of Diseases—On Mercurial Tremor.

The treatment of diseases by the endermic method, at least by that form of it which consists in the application of medicines to the surface of the denuded cutis, has been much more extensively employed, and according to published reports, has been much more decidedly useful in France than in this country. Whether this difference is chiefly to be attributed to the greater vivacity of imagination, and love for every novelty of medical, as well as of modish fashion, which ever has, and ever will characterise our light-hearted neighbours; or whether their diseases are on the whole less violent, and therefore more easily curable (and this consideration by the bye is too often neglected in making comparisons between domestic and foreign therapeutics); or lastly, whether we Englishman are so perversely attached to all "established institutions," that we dread any innovations, even of truth, until they are fairly forced upon us, we shall not presume to determine. Probably each of these causes has had its influence. Certain it is, while the French journals teem with reports of cases of neuralgia, and other affections of the nerves, of intermittent fevers, of diseases of the heart, &c. &c. successfully treated by the endermic method, the English ones exhibit only about once in a quarter or six months, an example or two of amaurosis, or of tic douloureux, in which the application of strychnine, or of morphia has been tried, and this too very generally with only partial benefit. We do not hesitate to confess, that our experience of French, and we may add, of other foreign, journalism does not lead us to place very great reliance on the therapeutic precepts of the continental physicians. Their chief excellence unquestionably is rather as pathological observers, than as judicious practitioners; and their excessive devotion of late years to the mere anatomy, as it were, of diseases has, we much fear, not unfrequently led them into many extravagant errors. In almost every number of this Journal, our readers will have observed that, although far from undervaluing or disparaging the study of the morbid characters discoverable on dissection, we have invariably deprecated that medical materialism, which has misled so many in their researches as to the true nature, and consequently as to the successful treatment of diseases. Numerous are the diseases which cannot be detected by the scalpel, or by the microscope; and to arrive at any thing like a rational understanding of their correct etiology, we must invoke the aid of other means of enquiry, such as the minute study of symptoms, and of the operation of our remedies, and the observance, and when it is possible, the chemical examination also of the excretions.

In the French capital at the present day, there are three dominant sects, or schools of physicians; the Anatomical, or physiological; the Hippocratic, or rational; and the Eclectic, which forms what may be called a juste milieu between the two former. The chief supporters of the anatomical school are Broussais, Bouillaud and their immediate followers, comprising a large proportion of the younger physicians in Paris, and the majority of the medical men in the provinces, and also, we should think, in their army and navy. We are not

much surprised at this. There is certainly something very seducing in the authoritative and dogmatical enunciation of the Broussaian doctrines. They are readily intelligible to the student of medicine, provided only he is willing and ready to yield implicit credence to whatever is told him in books and lectures, and when once admitted, they save him a vast deal of patient enquiry, and give him at the same time a most unhesitating reliance in his own practical skill. The scalpel and the lancet may be said to be the armorial bearings of the anatomical physician; with the one he discovers the nature of the disease; with the other he effects a cure of it.

The doctrines, and the data on which these doctrines are founded, have, we are told, all the demonstrative characters, and all the unerring uniformity of physical laws and of physical phenomena. Medicine has in their hands assumed many of the attributes of the exact sciences; and in truth the results of some of the anatomists' practice appear to be so certain—either speedy cure or rapid death—that they do not seem to have much overshot the mark in their claims and assertions. The anatomical physicians may be said to constitute the sect of the modern dogmatists. Like their brethren of antiquity, they assume the truth of certain doctrines, and their practice is guided not so much by the existing symptoms of diseases, as by their presumed and alleged organic causes. They are the genuine Whigs of medical literature. Opposed to almost all the reasonings and experience of bye-gone times, they love and follow whatever is striking and new: they have perceived some of the errors of their forefathers, and not satisfied with renouncing these, they have determined to abandon even the very high-road, to which these errors were as lanes and alleys; they have constructed theories which, they wish us to believe, are beautifully simple, and comprehensive, and which, may be worthily likened to the captivating doctrines of purity of election, and of universal suffrage so loudly recommended by their brethren in politics: they are averse to all moderate measures of treatment, scouting them as mere bit-by-bit reforms, and they prefer bold, decided, and even violent remedies, without much regard to the ultimate consequences.

Upon reading long records of cases in some of the most recent French works, and these too of established reputation, the attentive reader cannot fail to remark that few, if any, patients are recorded as incurable, or as having been discharged from the hospital unrelieved. They all most surely either recover perfectly or they shake off their mortal coil; and thus in either case, there is at least an obvious termination. Now we do not hesitate to affirm that judging from these very reports, an impression has been strongly left upon our minds, that the exit of many a patient has been accelerated by the heroic practice of these anatomical physicians. We have suspected this to be the case especially in those cases where any disease of the heart has been present. Every practical man knows, or ought to know, that a violent operation of any sort may prove almost immediately fatal, when the heart is organically diseased. We have known a drastic purgative have this effect more than once; and indeed any impression which induces syncope, or a tendency to that state is most dangerous.

Now there is scarcely one form of cardiac disease, in which bleeding, and that too very generally by large and repeated venæsection, is not recommended and used by Bouillaud, for example. Fortunately the English physicians have avoided this injudicious practice; and almost all our own recent authors have pointed out the superior advantages of local over general depletion in chronic affections of the heart. Another feature of the reports to which we are at present alluding, is the extreme paucity of merely functional disorders which they exhibit.—We rarely read of any of the class "neuroses" occurring in the wards of the La Charité, or of the Val de Grace hospitals. Asthma, chorea, and hys-

teria are seldom mentioned by name; and amenorrhœa, chlorosis, &c. seem to be equally uncommon.

Indeed with the exception of bronchitis, pleurisy, pneumonia, diseases of the heart, gastritis, gastro-enteritis, arthritis, and one or two others, the whole nosological catalogue might be expunged; and then with regard to the materia medica, we might, after reserving the lancet, the cupping instruments, leeches, croton oil, and a simple ptisan or two, vote it as utterly useless.

To such an extravagant extent has the depletory practice been carried, that an express "formula" for venæsection has of late years been laid down for the treatment of some diseases. We were lately reading a clinical lecture by Professor Bouillaud on acute rheumatism, wherein we are recommended to bleed patients suffering from this malady twice on the first, and also on the second day after admission (provided the symptoms be decidedly inflammatory), and then for several days successively to repeat without fail the operation, at least, once. This is the "saignée formulée" of the energetic physician of the La Charité. Colchicum appears to be rarely used, and the doses in which it is exhibited are usually very small. The preparations of mercury are seldom even alluded to; and we do not recollect at the present moment of reading that this most potent of all anti-rheumatic remedies was pushed to the extent of inducing salivation, in a single case out of fifty and upwards, which have been detailed, within the last twelve months, in the pages of the Journal Hebdomadaire, the legitimate oracle of the doctrines of Broussais, since his own Journal became defunct about two years ago. So much for the sect of Anatomical physicians of the present time. The sect arose and has flourished most in France. It has done very considerable benefit to medical science, by correcting many errors of theory, and by simplifying the practice in various diseases; but it has been far too ambitious and exclusive to be truly useful. Most of its members are believers in the doctrines of phrenology; and it will be observed, that the materialism (we do not involve any offensive meaning in this word) of these doctrines is allied to and harmonizes with the fundamental principles of the so-called physiological medicine.*

Directly opposed to the anatomical physicians, is the sect of the modern Hippocratists, or rational empirics. The leading advocates of this sect in Paris are Recamier, Bayle, Cayol, Gibert and Martinet; and the periodical which is devoted to their cause is the "Revue Medicale, ou Journal des Progrés de la Medecine Hippocratique."

These gentlemen profess to follow, not so much the doctrines and practice, as the discipline and principles of investigation inculcated by the Coan sage. Although they are not so entirely imbued with a love of his opinions, that they subscribe to the existence of four primary elements,—air, water, fire and earth, of which the body is according to him composed, and from which are derived the four primary temperaments,—the dry, humid, hot and cold—they recognize and admit, at least to a certain extent, the correctness of that hypothesis, which ascribes all the movements and actions of living bodies to a peculiar principle, denominated by Hippocrates "nature" (φυσις) —the superintending power which influences all parts of living bodies, directing their functions in health, and exciting certain salutiferous processes for the removal, and counteraction of all morbid operations. Hippocrates attributed indeed a kind of intelligence, or power of active discrimination to this principle, which prompted it, as it were, to favor and encourage all actions which

* We observe that Broussais has within the last two months commenced an extended course of lectures on phrenology in Paris. The Lancet has promised to introduce them to the English medical public. We hope that our active cotemporary will speedily fulfil his promise. The Journal de la Societé Phrenologique comes regularly under our notice, but unfortunately there is never any communication in it, worthy of our pages.—*Rev.*

are beneficial to health, and to oppose and neutralise whatever has a tendency to induce disease. For example, whenever the stomach is suffering from over-repletion, or from the presence of any noxious substance, forthwith the Φυσις stimulates the organ to reject by vomiting the offending matter. The phenomena of a hot burning fever afford another illustration: in it all the energies of the body appear to be preternaturally excited; Nature therefore with the view of counteracting this morbid state of excitement, impairs the powers of the stomach, and the mouth and fauces become parched—the thirst, and anorexia therefore may be regarded as salutary means, instituted by this presiding principle of Nature, to restrain and subdue the feverish agitation of the whole system.

The most important duty of the physician in the treatment of disease, inculcated by Hippocrates, and observed by his followers of the present day, is to watch the operations of this nature, with the view of promoting those actions which appear to be salutary, and of checking, or suppressing those which appear to be hurtful. According to this doctrine, the chief study of a medical man should be semiology, or the careful observance of all the existing signs, or symptoms of a disease, and he should avoid having his mind perplexed with etiological speculations as to its supposed seat and essential nature. The tendency of such precepts is to induce great caution in the treatment of diseases;—much is left to the superintending influence of Nature; and violent and very energetic remedies are not generally resorted to, unless the symptoms obviously denote a strongly hyperasthenic excitement. The "medecine expectante" is characteristic of the Hippocratists, and is antipodal to the "medecine heroique ou abattante" of the Anatomical physicians. These latter we styled the Whigs of medicine; and well do the Hippocratists deserve to be called the "good old Tories." Their inviolable attachment to antiquity, their love for whatever is the established order of things, their dread of innovations, their opposition to all changes, and even to many improvements in medical science (such as the use of auscultation), their preference of mild to violent remedies, and their implicit credence in the salutary and self-correcting operations of the system itself, well entitle them to this appellation. It is worthy of notice that most of the medical Tories in France (and we might add, in England) are at the same time political Tories. Dr. Cayol, for one, was deprived of his professional chair, at the accession of Louis Philippe, in consequence of his attachment to the cause of Charles X.

The other leading pathological doctrine of Hippocrates, that, which regards the fluids as the primary seat of almost all diseases, has not received, we think, from the physicians who appropriate to themselves the appellation of modern Hippocratists, the attention which it, to a certain extent, merits. Of late years the doctrine of a limited and partial humorism has been gradually, and steadily advancing into favor with the best observers of disease; and we must confess that by far the most valuable part of our information on this subject has of late years been communicated not by the modern Hippocratists, but rather by the sect of physicians, which remains to be noticed, we allude to modern Eclectics. Among these are many, perhaps most, of the best physicians in Paris, as Andral, Chomel, Louis, Bricheteau, Marc, &c.

Far from being indifferent to the study of morbid anatomy, it is well known that the eclectic school ranks among its disciples some excellent morbid anatomists. Indeed M. Andral is acknowledged by the profession to be the first pathologist in the world, and M. M. Chomel and Louis have already earned a reputation only second to his.

Yet with all their minute knowledge of the morbid lesions in almost every disease, and their unqualified estimation of the paramount value of such knowledge, the Eclectics have never permitted themselves to become such medical materialists as to believe that any physiological action, healthy or diseased, can be well explained or understood by

reference solely to the normal, or abnormal physical state of any *one* organ. They have justly inculcated the necessity of minutely exploring the condition of all the leading functions of the body in disease, and more particularly in those maladies, which at their very outset affect the whole frame—we allude to the multiform family of fevers. Instead of localizing the primary seat of fevers in the brain, or in the lungs, or in the heart and bloodvessels, or in the stomach and intestines, they have wisely taught us that all these organs are, or at least may be, involved in the morbid action simultaneously, and may continue to suffer together throughout the whole course of the disease; and, moreover, that any mode of treatment which is exclusive, and directed to the relief of but one organ or one set of organs, must be, as a general rule, unwise and hurtful. They have extended their researches to the examination of the fluids, as well as of the solids of the body in disease, and they have thus laid the foundation for that rational Humorism which has sprung up of late years. They have diligently watched the symptoms which are attributable to a disturbance of the functions of the nervous system, and pointed out the influence which such disturbance exercises in modifying the features of many of those diseases, which, by the anatomical physicians, are affirmed to be mere inflammatory affections of certain organs. Take, for example, that most obstinate malady, hooping-cough. With many, it is a favourite doctrine that hooping-cough is essentially a bronchitic affection, and that, therefore, the antiphlogistic treatment is invariably and necessarily the only safe means of cure. The unprejudiced physician, however, will soon discover that the inflammation of the air-passages (if it be present at all) is always accompanied and modified by a peculiar disturbance of the functions of the nervi vagi, and this very disturbance constitutes the real and proximate cause of the disease, the bronchitic affection being, in fact, a merely contingent and occasional adjunct, or (as the French will call it) "epiphenomenon." We do not wish to undervalue the importance of regulated depletory measures in the early stage of pertussis; they are generally necessary and always useful, but nevertheless they will seldom or never cure the disease. There seems to be a peculiar morbid sympathy between the branches of the nervi vagi which are dispersed on the stomach, and those which supply the lungs, and the successful treatment of this disease often depends upon regulating and controuling this sympathy. Hence the utility of antacids, antispasmodics, and tonics, in the later stages of hooping-cough.

We need not adduce other examples to prove how necessary it is not to limit our views of disease within certain bounds of our own making, nor to attempt to simplify too much what Nature has made complex. The Eclectic physicians shew their wisdom by the more liberal and comprehensive views which they have taken. While they have not rejected the introduction of any new methods of examining disease, or of any new methods of treating it, they have faithfully retained all the good parts of the practice of the olden times, and eschewed only the obsolete modes and maxims of our forefathers. Following the example of Brother Martin, in Swift's Tale of the Tub, they have renounced the extravagances of the Lord Peters of medicine, but have most fortunately, at the same time, avoided the errors of the opposite extreme, and not indulged in all the incredulous scepticism and presumptuous arrogance of the Presbyter Jacks. They are, in short, the conservative Whigs or liberal Tories of modern physic, willing to encourage all rational reforms and substantial improvements, but steadfastly opposed to all extravagant and Utopian notions of uniform and universal equality.

We have been gradually led on to indulge in the preceding random observations on the different sects or schools of medical practice prevalent at the present time in France, after having, for several successive days, been poring over the wearisome pages of the Encyclographie des Sciences Medicales; which, as many of our readers may know, consists of a reprint of almost

all the medical periodicals published in Paris.

But we must now return to the point whence we started; we mean the consideration of the endermic method of treating diseases. M. Raciborski has communicated several papers to the Journ. Hebdom. on this subject, and we propose to extract such of his observations as may seem worthy of notice.

ENDERMIC USE OF QUININE IN AGUES.

The endermic use of quinine, in cases of intermittent fevers, has been adopted by several of the best physicians in Paris. It is well known that, in many agues, the mucous membrane, not only of the stomach, but also of the large intestines, is in a state of congestion or of actual inflammation. The exhibition of quinine or of any other tonic by the mouth, or in the way of enema, must, under such circumstances, be positively injurious, and it has been with the view of avoiding any aggravation of the intestinal distress, and yet overcoming the peculiar and unknown state of the system on which the periodic recurrence of a morbid paroxysm, in intermittent diseases, depends, and which is so generally controlled and removed by bark in all its forms, that the endermic use of quinine has been so strenuously recommended, especially by those physicians whose minds are ever haunted with the dread of gastrite or gastro-enterite.

Five cases, treated by M. Chomel at the Hôtel Dieu, are reported by M. Raciborski.

The first was certainly a very mild case. A man 28 years of age, robust, and hitherto in perfect health, was seized with a febrile paroxysm which lasted for four or five hours, after exposure to cold and damp. The paroxysm returned regularly every second day, and on the intermediate days the patient was quite apyrectic. On the morning when the sixth paroxysm was expected, eight grains of sulphate of quinine were applied on the epigastrium, which had been previously denuded of its cuticle by strong ammoniacal pommade. The paroxysm was quite checked, and, although the patient remained in the hospital for another week, there was no re-appearance of any agueish symptoms.

The second case occurred in a middle-aged man, who had suffered from tertian fever in the preceding Autumn, and in whom the recurrence of the disease at the period of his admission seemed to have been induced by a violent mental emotion. He had already experienced eight paroxysms within the last 16 days. When admitted, he was quite free from any feverish disturbance; a light demulcent diet was ordered. Two paroxysms occurred in the hospital. Two grains, therefore, of quinine were ordered to be applied on a blistered surface of the epigastrium. On the following day, the paroxysm returned, but at a later period of the day than hitherto, and it lasted only one hour, instead of four or five, as on former attacks.

The application of the quinine was repeated daily, and all disposition to any recurrence of the intermittent illness ceased entirely.

The third case was similar. Only four paroxysms had occurred before the endermic use of the quinine was tried. The application of four grains daily effected a complete cure.

The fifth case, one of tertian fever, like all the preceding examples, was more severe; the disease had been of longer duration; the patient had suffered from ague before; and moreover the spleen was felt to be perceptibly enlarged. Six grains of quinine applied to a small denuded surface on the epigastrium an hour before an expected paroxysm, caused it to be much less severe and less prolonged than any preceding one; and by repeating the application once or twice again, there was no recurrence of any feverish attack.

[Our readers will probably agree with us that the preceding cases do not afford any very satisfactory data for the endermic treatment of intermittent fever. We give them as we find them reported in our Continental cotemporary. The doctrine of those metaphysicians, who teach us that the relation of cause and effect is nothing more than that of

mere antecedence and succession, appears to influence most of the medical reasonings of our lively neighbours. A mild case of ague occurs; the patient is admitted into a hospital; some quinine is applied once or twice to a blistered surface; the disease becomes milder, and is cured:—therefore, the cure must be attributable to this item of the treatment.—Q. E. D.—*Rev.*]

ENDERMIC USE OF DIGITALIS IN ORGANIC AFFECTIONS OF THE HEART —MERCURIAL TREMOR.

M. Raciborski reports four cases of heart disease, in which the endermic use of digitalis was, we are told, productive of beneficial effects.

The first was that of a Polish woman, 44 years of age. The rational and auscultatory symptoms indicated a general hypertrophy of the heart, and induration of the valves; and, in addition to this disease, there was a considerable effusion into the abdominal cavity. The urine was very scanty. A potion, containing 10 grains of powdered digitalis, was ordered to be taken in divided portions, and this dose was repeated for the following two or three days. In consequence, however, of extreme nausea being induced, the powdered digitalis was applied to a blistered surface on the epigastrium. The peculiar sedative influence of the medicine continued, we are told, as if its internal use had been persevered in. [Surely this is a very insufficient proof of the efficacy of the remedy.—*Rev.*] After the lapse of a fortnight, the blister having already healed, a mixture, containing 10 grains of the digitalis, was again ordered for internal administration. The dose was raised to 15 grains. The poor patient became worse. On the second day preceding her death, we are informed that she suffered much from dyspnœa, vomiting, headache, and sleeplessness. The palpitations of the heart were very feeble; the pulse was 57. She was bled to six ounces (!) The blood drawn presented a large quantity of serum, and no trace of buffy coat on the coagulum (!!) The distressing vomiting (induced, no doubt, by the poisonous influence of the foxglove) continued to the last.

[If we were desired to give a name to the preceding case, we should have no hesitation in naming it—fatal effects of an overdose of digitalis, in a patient labouring under organic disease of the heart. We could not find a more apt illustration than what this case affords, of some remarks on the dangerous practice of the anatomical physicians, in a former part of this paper.—*Rev.*]

The following case is certainly more pertinent than the preceding one. A woman, 28 years of age, had been in the Hôpital de la Charité for rheumatism and palpitations of the heart, in Oct. 1833. She was cured by the internal and external use of digitalis in large doses. In the following March, the heart symptoms returned, and the patient having, on the former occasion, suffered distressing sickness from the internal use of the remedy, requested that the external use alone might be tried. The palpitations of the heart were strong, and one of the bruits was accompanied with a very distinct blowing or whizzing sound. On the 6th of March, the pulse being 100, 12 grains of powdered digitalis were sprinkled on a blistered surface of the epigastrium. On the following two days, the pulse had fallen to 82, and the palpitations had been decidedly less frequent and less violent. The pulse gradually fell to 64, and all the symptoms became so much mitigated that she left the hospital. It is not stated in the report, how often the application of the digitalis was renewed; but we are led by the context to suppose, that it was every second or third day.

The third case affords another most distressing example of the fatal effects of *doing too much* in extensive and serious disease of the heart. The patient died *in consequence* (M. Bouillaud would no doubt substitute "*in spite of*") of bleeding and large doses of digitalis. Truly, Sangrado and his worthy pupil could not possibly have despatched their patients in a more summary manner.

From these melancholy details, we pass to notice a few cases which are

adduced to prove that the muriate of morphia used endermically affords great relief in many nervous disorders. A rather curious case of a young man, who had suffered from vomiting every night (at least whenever he took food soon before going to bed), for a period of six weeks, is detailed. This unpleasant symptom was removed by blistering his epigastrium, and applying to the raw surface a grain of the muriate of morphia, for five days successively.

No internal medicines were used. It is quite possible that a single dose of opiate, taken inwardly, would have been as, or perhaps more speedily successful. Two other cases are given, in which the vomiting had been even still more obstinate, had resisted internal remedies, but where it yielded to the endermic use of the acetate of morphia, in doses of from one-half to a whole grain applied for several days in succession.

The following case of MERCURIAL TREMOR successfully treated in a similar manner is instructive. A man, 34 years of age, who dealt in mercury, was admitted into La Charité Hospital on May 1834. Three months prior to his admission, he began to be affected with tremblings of the upper extremities; and soon afterwards the lower limbs were similarly affected. These tremblings had gradually increased so much, that he could with difficulty hold a cup in his hand, or direct his food to his mouth. When he attempted to stand, his limbs bent under him, and he must have fallen, if not supported. There was no headache. His pulse was natural, rather slow.

A long narrow blister, nearly a foot in length, was applied over the spinal column, and when the epidermis was separated, a grain of acetate of morphia was sprinkled and retained on the denuded surface. In the course of five days, a decided amendment was observable. Enemata of musk and camphor had been administered occasionally. The same treatment was persevered in for a week more, and a complete cure was obtained.

With respect to this sort of shaking palsy, the "tremblement mercuriel," of the French, it is not unfrequently observed in workmen who are exposed in their trade to the fumes of, or to the mere contact of quicksilver. Hence miners, gilders and barometer makers, are those in whom the disease is usually noticed. The disease usually creeps on slowly and gradually. At first the person finds that his arms and hands are unsteady and trembling, and that he cannot keep them quiet for any length of time. Then his limbs become week and tottering, whenever he attempts to walk: his speech also becomes affected, and sometimes even the effort of chewing is accompanied with a convulsive agitation of the muscles of the cheek and throat. If after the occurrence of these symptoms, the patient is still exposed to the noxious influence of the quicksilver, loss of memory, sleeplessness, delirium and death may ensue; but this is necessarily of very rare occurrence, as he is generally quite incapacitated in the earlier stage of the disease from following his work. The entire surface of the body becomes in some cases of a brown colour; the pulse is usually slow; the bowels are not much affected, except with flatulence.

In this form of quicksilver-poisoning, the salivary glands are but little, if at all, affected. Death has been in most of the fatal cases owing to marasmus and a general sinking of all the energies, especially those immediately dependent on the nervous system. It appears from two or three cases on record that a single exposure to the fumes of mercury has been sufficient to induce the disease.

Dr. Christison mentions a case, in which a barometer-maker and one of his workmen, who were accidentally exposed one night during sleep to the vapours of mercury from a pot on a heated stove, were most severely affected, the latter with salivation which caused the loss of all his teeth, and the former with shaking palsy, which lasted his whole life. Generally however, the disease comes on very gradually, and only after repeated and lengthened exposures to the morbific cause. Dr. Darwall describes the case of a man, 62

years of age, in whom the disease had existed for twenty-five years. "At the time we saw him," says he, "all the voluntary muscles were violently agitated, so that every attempt to speak was interrupted by the spasmodic contractions of the jaws and tongue. His head was in a continual see-saw; he could not hold any thing in his hands. Any attempt to obtain control over his muscles invariably rendered the convulsions more violent. Mental agitation increased them. His teeth had been lost for many years; they had fallen out without being decayed. His appetite was good, his sleep sound, and his evacuations were voluntary."

Many of the symptoms of mercurial tremor indicate a very marked resemblance of this disease to the chorea of young people. The agitation of the arms and hands, the shuffling dragging gait, the confusion of the speech, and the occasional imbecility of the mental powers, are common to both. Perhaps too the etiology of both diseases, were it correctly known, might point out the intimate alliance between them. Indeed a general trembling of the body, whether induced by chorea, mercury, the abuse of ardent spirits, wine, coffee, opium, &c. by excess in venery, by masturbation, or by the gradual decay of the animal powers, as old age advances, may, it seems probable, be in every case referable to a common cause, viz. some temporary or permanent affection of the brain, or of the spinal marrow.

A violent mental emotion will often produce a universal trembling of every part of the frame; and many cases of shaking palsy, occurring in prematurely old constitutions, may be traced to some paroxysm of passion, anger, grief, or even of joy.

Baron Alibert on the Cheloid Tumor of the Skin.

The cutaneous affection which has been named, "keloide" or "cheloide" (from the striking resemblance which in shape it often bears to the figure of a crab) was first accurately described by Baron Alibert in his *Monographie des Dermatoses*. Some writers have described it under the appellation of "cancroide" or of "cancre-blanc." Bateman at first disputed the existence of any such disease; but subsequently he discovered his error, and within the last twenty years so many pupils have attended Alibert's lectures at the Hôpital St. Louis, that most medical men are, he says, now well acquainted with its characters. It is indicated by a hard and resisting excrescence of the skin, usually flattened in the middle and more prominent at the edges, throwing out from the sides branches or prolongations, which, when lengthened, look like the legs of a crab. These prolongations have sometimes the appearance of irregular scars from a burn. Occasionally the diseased skin exhibits several oblong, cylindrical knobs, or lumps, more or less prominent above the rest of the surface, and imbedded, as it were, in the cutaneous tissue.

The first case, which the Baron ever saw, occurred in a young female. The excrescence was situated between the mammæ, and measured about two inches and a half in length, and about one in width. It projected for a line or so above the surface, and was of a deeper red colour than the surrounding integuments. From each side there extended a bifurcated branch or prolongation, giving the cheloid patch a certain degree of resemblance to the body and legs of a crab. Independently of an almost incessant and very annoying pruritus, the patient felt at times sharp darting pains through the tumor. The case had been submitted to the examination of several eminent surgeons, and the general impression was that the disease was of a cancerous nature. M. Alibert however, perceiving in its appearance very marked difference from that of ordinary cancer of the skin, did not assent to this diagnosis, and the correctness of his opinion he soon had an opportunity of confirming by the inspection of several other similar cases. One of these occurred in the person of a distinguished actress. The tumor being situated over

able cause; in another, it occurred on the buttock of an adult, upon a cicatrice of an old burn, and in the last case there were two tumors, one on either cheek; these supervened after small-pox."

When the disease has existed for a length of time, its central part, or different points of its circumference, become soft, shrivelled, and wrinkly, assuming quite the appearance of a scar left by a burn. This, as well as other characters, will enable the surgeon to distinguish cheloid from scrofulous, syphilitic, or cancerous tubercles. Rayer advises that no irritant application be made to cheloid tumors. He classes the disease among the hypertrophiæ of the skin.

The following description of a cutaneous affection, given by Retz in his treatise on "Maladies de la Peau," Paris, 1790, appears to refer to cheloid.

"This disease is very extraordinary; I have only met with three cases of it. The epidermis is not affected; it is only of a deep red colour, and is raised by a collection of solid matter, which here occurs in lumps of the size of an apricot, and there in rays the length of the finger, and as thick as maccaroni; or the substance appears under the form of flattened and extensive wens, much raised, and as broad as one or both hands. These wen-like patches are singularly interlaced with bands of the same substance, of different thickness, resembling broad cicatrices, and form several folds and counterfolds, as if there were sundry cicatrices placed one on the top or by the side of another."

M. ST. HILAIRE ON ALBINISM AND MELANISM.

Albinism may be either partial, or general and extending over the whole surface of the body. In the former variety, patches only of the body are affected with decoloration, or an unnatural whiteness of hue. It is most frequently observed in the negroes, and when it occurs in them, it gives rise to a curious appearance: they seem piebald, the white patches contrasting strongly with the deep black of the rest of the surface. When the albinism is complete, we almost always find that some other tissues of the body, as well as the skin, exhibit anomalous appearances. Thus the iris is usually either colourless, or it is of a transparent red colour; and the pupil is often of an intense red, the choroid coat being then destitute of its pigmentum nigrum. This coincidence of irregularity in the dermoid and visual organs has been adduced in support of the hypothesis advanced by the German naturalists, and advocated by M. Blainville, that there is connexion between the skin and the organs of the other senses.

The constitution or temperament of Albinos is invariably lymphatic; and indeed we might, à priori, have expected that this should be the case, seeing that persons of this temperament have always a paler hue than other people. Blonde persons are always more or less lymphatic.

In consequence of the changes in the condition of the eyes, the transparency of the iris, and the deficiency or the total want of the pigmentum nigrum of the choroid, albinos cannot bear easily a strong light, and, therefore, they do not see well in open day. Their eyes are usually more or less closed, and the constant winking has led some to suppose, that the levatores palpebræ muscles have lost their accustomed power. It is well known that a similar state of the organs of vision is the natural or normal condition of certain of the lower animals; viz. of those which see best in dull light, and which seek their prey in the dusk. The powers of propagation and the mental faculties are always imperfectly developed in albinos.

Some tribes of Africans have generally regarded albinos with unkindness, and even with abhorrence, while others have superstitiously venerated them, looking upon them as superior beings, and worthy of the highest respect. The circumstance of their being, in some places, ill-treated, and often obliged to live together at a distance from the rest of the tribe, explains the error of Buffon, and some other naturalists, in supposing that the albinos form a distinct

race of people. But this, indeed, is not unlike many other of the idle speculations of the ingenious Count. Albino women, although certainly not barren, are much less prolific than other females. Their offspring is sometimes quite healthy, while at other times they inherit the peculiarities of their parents. It was falsely supposed, for a length of time, that the offspring of an albino woman and of a male negro must be mottled or piebald; but this idea is quite an erroneous one, and it has been disproved by M. Geoffroy St. Hilaire, who has satisfactorily shewn, that the offspring of two persons of different normal races, as, for example, of a white and of a negro, is invariably a mule, partaking of the modified characters of both parents; while, on the contrary, the offspring of two persons almost entirely alike is variable, sometimes resembling in most respects the father—at other times the mother. This law is strictly applicable to albinos, and we see it exemplified daily in the offspring of domestic animals.

Whatever be the degree of albinism, whether it be partial or complete, feeble or intense, the person invariably retains all the distinguishing features and characters of his race.

Melanism, or that state where the natural colour of the skin is much darker than usual, is much more rare than albinism. In the human being, it has never been seen in a decided or very marked degree; but in the lower animals it is by no means unfrequent. Authors have, indeed, narrated some wonderful tales of black, or at least dark-coloured children being born of white mothers. Thus, for example, an anatomist of the sixteenth century has related the instance of a woman, who had escaped from a fire "à moitié brulée," and gave birth a short time afterwards to a child entirely black! and every one has heard of mulatto children having been born, when certainly the *married* couple have been fair, as fair could be. Whether both father and mother were so, is a different question.

Partial melanism is of not very unfrequent occurrence; but hitherto it has not been attentively studied. It is this anomaly which constitutes what have been called mother-spots, or nævi materni.* Authors have recognized two important varieties of these blemishes—1, sanguinolent spots, caused not by the deposit of colouring matter in the dermoid tissue, but by an hypertrophy of the vascular system in certain parts of the skin; and, 2, melanotic spots, occasioned by the deposit of colouring matter in the dermoid tissue.

The colour of the spots varies much in intensity, from a deep black to a yellowish-brown or a coppery red. When the spots are truly melanotic, they are indelible, and are neither effaced spontaneously, nor can they be dispersed by any remedial means. They may, therefore, be regarded, in a legal point of view, as useful adjuvants, in some cases, in establishing the identity of certain persons. They are seldom or perhaps never elevated above the surface, nor does their colour ever vary in intensity as is well known to be the case with the proper nævi materni, from the influence of external heat, mental emotions, and so forth. It is unnecessary to allude to the characters of the sanguinolent spots, or proper nævi, or to the supposed connexion between the origin of these, and, we may also add, of the melanotic spots, and certain longings, impressions, and imaginations of pregnant women.—*Gazette des Hôpitaux.*

The preceding remarks of M. Alibert are very scanty on the subject of albi-

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* M. St. Hilaire is extremely incorrect in arranging the varieties of nævi under the general head of melanism. There is, indeed, one variety of them, the pigmentary nævi of Rayer, the "spili" of the old authors, which seems to consist in some anomalous state of the rete mucosum and of the colouring matter of the skin; but surely the other two varieties, in which either the vessels of the skin are enlarged and diseased, or there is an hypertrophied and thickened condition of the cutaneous and subcutaneous tissues, have no characters in common with ordinary melanism.—*Rev.*

nism and melanism. We shall therefore add a few particulars. The hair of albinos is usually smooth, silky, and straight, but sometimes crisped, as in negroes; its colour is like that of cotton, or blanched silk, and very different from the golden yellow colour of light hair. The eyebrows, the beard, and the hair of the pubes are equally blanched. Albinos are generally weakly in frame and feeble in mind. Partial albinism is sometimes congenital; at other times it occurs during the progress of life. Dr. Rayer alludes to the case of a young girl, who had spots of lentigo on the face, and leucopathic patches on the neck and body. Such patches are more frequently observed on the genital organs, and in their neighbourhood, than in other parts of the body.

Accidental partial albinism or leucopathia is most frequently the consequence of some strong mental emotion. Rayer had lately a case, at the Hôpital de la Charité, of a man 30 years of age, who, upon the loss of some property, became affected with this appearance; there were numerous white milky spots disseminated over the body and limbs, and there was a partial blanching of the hair, whiskers, and eyelashes.

General or universal albinism has been observed most frequently among the African negroes; occasionally, also, in the natives of Darien, of Brazil, Sumatra, and New Guinea, and even in Europe among whites, in Denmark, England, France, Switzerland, &c.

With respect to melanism or nigrities, we find the following remarks in Rayer's great work.

General congenital nigrities has, perhaps, never been seen; but there are several well-attested cases of accidental nigrities on record. Thus, M. Chomel alludes to the case of an apathetic old soldier, whose skin, without any appreciable cause, became as black in some parts as that of a negro, and of a yellowish-brown in others. M. Rostan has published a case of a woman, 70 years of age, who became as black as a negress in a single night, after great mental agitation.

Partial nigrities is of not unfrequent occurrence. It is most commonly observed on the genital organs. The scrotum and penis of adults is not unfrequently of a very dark colour; and Haller has seen the same appearance in the pubic region of a female.

During pregnancy, patches of nigrities are often observed on the abdomen, around the nipples, and sometimes also on the face. Rayer has seen several cases in which the tongue became partially black, the colouring matter, of a blueish-black hue, being generally deposited on the edges of the organ, in small close spots, whence it gradually extended over its upper surface.

ODORIFEROUS EXHALATION FROM THE SKIN.

There was a case lately in the wards of La Charité, under the care of M. Rayer, of this pathological curiosity. A woman, 38 years of age, was admitted in a state of extreme marasmus, and labouring under chronic peritonitis. During the eight days preceding her death, the surface of the arms and of the trunk exhaled a very strong odour of musk.

Strict enquiries were made to ascertain whether any musk, or other similar perfume, had been introduced into the wards by the nurses or friends of the patient, "et tout le monde, ainsi que la malade elle-même, nous a repondu par la negative." The treatment of this woman had consisted in the use of antiphlogistic, emollient, and revulsive remedies, such as leeches to the epigastrium, blisters and sinapisms to the legs, and demulcent drinks.

The post-mortem examination did not very satisfactorily account for the disease which proved fatal. The only lesions found in the abdominal viscera were some old adhesions of the rectum to the posterior surface of the uterus, and of the colon to the liver; the ovaria and kidneys exhibited traces of inflammation; the intestines were at different points congested with blood, but did not present any well-marked or very serious lesion.

These alterations do not certainly account for the extreme tenderness of the abdomen during life, for the very obstinate diarrhœa, the excessive exhaustion, and tendency to coma.

In a late number of the Annali Universali di Medicina, Dr. Speranza has reported a case, somewhat analogous to the preceding one: but in his patient the extent of surface, which gave out the odoriferous effluvia, was much more limited; for it was confined to one of the fore-arms.

He has collected the particulars of most of the cases which have been recorded; and among these, we observe that there are three, in which a strong musky smell was emitted from the armpits.—*Lancette Française.*

Case of Blackening of the Skin—the Pannus Melaneus of Alibert—the Melasma of Rayer.

A woman 41 years of age, unmarried, and who had led an active and laborious life as a servant, was admitted into the Hôpital St. Louis under the care of Baron Alibert. She stated that she had enjoyed good health until her thirty-fourth year, at which time the catamenia, which had previously been regular and abundant, became very scanty, and her general health was a good deal disturbed. The complexion of her skin had hitherto been quite fair; but now it became considerably darker, and by her thirty-ninth year the brown hue had increased so much that it "attirait l'attention de tout le monde."—The skin had become also very rough and furfuraceous, and she was annoyed with a most intolerable itching over almost every part of her body. In course of time the scalp became affected with a dartrous eruption, but this gradually abated.

When first examined by Baron Alibert, this patient's general health was pretty good; her speech however was difficult like that of a person affected with partial paralysis. The colour of the skin over the whole extent of the body was nearly that of a withered leaf, darker than in any case of elephantiasis, and approaching almost to the hue of the negro. Even the lips were blackish, and the tongue which was of a pale brown colour exhibited four or five very black spots of from three to four lines in diameter. The hands were quite as dark as in a negro. The fore-arms exhibited several patches of a black colour: these patches had been the seat of an intolerable itchiness, and had become furfuraceous, before they acquired their dark hue. In no other part of the body were these dark patches observed.

This discoloration of the skin has been called "pannus melaneus" by Baron Alibert. It belongs to the class "dermatose dyschromateuse."—*Journal des Connoiss. Medicales.*

The disease in the preceding case is the pityriasis nigra of Willan and other authors. It is not a simple discoloration of the skin, for there is always more or less accompanying furfuraceous desquamation. By this compound character, the genuine melasma (this is the name given to it by Rayer) may be distinguished from partial nigrities, described in a preceding article. Dr. Willan observed several cases of this affection in children who had been born in the East Indies and brought over to England. It began with an eruption of minute papulæ, and ended with slight furfuraceous desquamation and blackish discoloration of the skin. A melasmatic affection of the surface is not unfrequent in the pellagra of Italy, and it was observed in some cases of that anomalous epidemic (acrodynia) which prevailed in Paris in 1828.

The following very curious example is related by Rayer.

A man 33 years of age was admitted into the Hôpital St. Antoine on the 27th September, 1828. His complexion was brown, and his hair was black. He was suffering with the symptoms of the epidemic. On the day of his entrance, all were struck on uncovering the patient with the black hue of the skin of the belly and trunk; the patient seemed equally astonished himself, and assured us that the skin, though always naturally brown, was

very different from what he had ever observed before. This hue continued. On the 30th of September, no morbid discolouration had taken place on the face; the skin of the neck, and of the anterior and posterior parts of the thorax was brown and smooth like that of a mulatto. The anterior part of the abdomen presented a very peculiar appearance: the epidermis was detached in small laminæ about the size of a silver threepence; these laminæ were positively black both on their internal and external surface, but they appeared blacker on the skin than after they were detached. On the parts from which the cuticular lamellæ were ready to be detached, the skin was already provided with a new epidermis, not nearly so black as the preceding one, and almost of the same colour as the skin of a mulatto. The skin of the scrotum and of the upper parts of the thigh was as black as that of a Negro, but it was not smooth and shining in its appearance; desquamation was in fact going on in several places from its surface. After the coloured epidermis had fallen off, the skin assumed a brown hue."

NEW MEDICAL JOURNAL IN INDIA.

We were not till late in this quarter, made aware of the existence of a new labourer in the vineyard of periodical medicine, on the banks of the Ganges. The "INDIA JOURNAL OF MEDICAL SCIENCE" completed its second volume on the 1st December last. It is now edited by Mr. Corbyn, whose name is known to his European brethren, as an early writer on the Indian Cholera. The first volume, however, was edited by Messrs. Grant and Pearson, who have retired. The plan of the work is rather too popular for this country; but is, perhaps, well adapted to India, where great numbers of Europeans are deeply interested in medical matters, without being able to procure medical advice.

We shall make occasional selections from the department of original communications; but at present, can only introduce one or two extracts. The following graphic portrait of our friend Mr. Liston, drawn on the banks of the Ganges, is good-humoured, and will excite a smile on the countenance of this talented surgeon, now a resident amongst us.

Sketches of the Edinburgh Medical Professors, No. 3.

MR. LISTON.

"Dear Gentlemen,—The light and characteristic graver of your portrait-taker Scotus, has vividly recalled the images of the dear and illustrious names, which have rendered Edinburgh, what Professor Sedgwick calls it 'a Glorious City.'

As I hope Scotus will complete a Picture Gallery of 'the Professors,' I will not poach upon his domain, but will attempt, with your leave, to give a 'local habitation' to some reminiscences of the private Lecturers, some of whom are not less known to fame, than the Professors; and our first *subject* shall be ROBERT LISTON.

I could easily give his birth, parentage, and education, but as Surgeons, unlike Poets, are not born such, I will at once take him, 'with all his blushing honors, (and numerous imperfections) thick upon him,' as he lectured four years ago, in Infirmary Street. Suppose yourself one of 150 young men, seated in his small lecture-room, watching the preparations being brought in, especially that enormous Sarcocele, weighing 60 lbs., and requiring three apprentices to bring it in, one of their master's trophies. A carriage rattles up to the door, and a tall, rather heavily made man, with a considerable stoop of the shoulders, lounges in among a group of students, chatting and laughing; he makes for the arena, and mounts a *four-legged stool;* you observe his fine neck, and pale, manly, massy features, of which the finely cut firm mouth is characteristic; his bust would please a sculptor, and his friend Joseph has made an excellent likeness of him.

But Heavens, how awkward he is!

See how he scrapes the floor with one foot, while the other is cock'd up under the stool, as if to keep him on, and his lower lip is held in his teeth; how he swings from side to side, like an elephant in a cage, but something is wanting; ha! he seizes a *catheter*, (the Aaron's rod which vivifies this rock) he flourishes it right and left, like a broad-sword, his lip escapes from its restraint with a smack! and I am mistaken, if you do not receive sound, practical rules of surgery, usefully illustrated, and skilfully reduced to practice by operations, and you will leave him pleased and instructed, in spite of his uncouthness, stammering, and gyrations, on the antipodes to his head.

Mr. Liston is an enthusiast in his profession, and well fitted to inoculate his students, with his own cool, bold, decided spirit. He has been gifted by nature, with what at first would appear an imperfection in a Surgeon, the most enormous hands I ever saw on man, but like the Elephant's trunk, they are capable of the most minute, as well as the most powerful actions, and whether he breaks down a cataract, excises a hip, frees a hernia, or extracts a stone, he is a first rate operator. The success is equal to his despatch; in lithotomy the patient is usually returned to bed in 2 or 3 minutes from the commencement of the operation, and the deaths out of his numerous operations have been very rare. After lithotomy, he inserts a gum elastic tube into the bladder for some days, to prevent infiltration of urine, in the tract of the wound, which he justly considers a great source of mischief. Light dressings, and the absence of all irritation, are strenuously inculcated by him, especially where union by the first intention is looked for. I think that I hear him characterise "more suo," the proceedings of the Montpellier Surgeon, described by Mr. Atkinson, who sewed over the surface of the stump *continuously*, &c., to procure "la reunion par premiere intention!" Mr. L. despises medicine, and its professors, as much as he adores surgery, he thinks that,

One Physician like a sculler plies,
He gently paddles, and his patient dies;
But two Physicians, like a pair of oars,
Quickly waft you, to the Stygian shores.

He was wont to say, that a Physician was like a blind man with a cudgel, trying to separate two persons fighting, as likely to knock the injured man on the head, as the aggressor.

Mr. L. when off his guard, (for he can smile, and pleasingly too when he likes) is rather overbearing and dictatorial, failings which are somewhat cherished, by the subserviency and toadyism of some of his intimates; these private qualities, are apt to be carried into public life, and in consequence, he is not so much respected and admired by his brethren, and the public, as his great talents for his profession would lead one to expect. He is yet young, let us hope that he will 'change all that.'

Your obedient servant,
EDINENSIS."

Remarkable Case of Hemiplegia.

"Francis Joseph, age 35 years, of sallow unhealthy complexion, a seaman on board an Indiaman, just arrived from England, was admitted into the General Hospital on the 27th of January, 1833, with hernia humoralis, which in a few days was relieved by free local bleeding and the exhibition of a solution of salts and tartar emetic to nausea and purging.

On the evening of the 6th of February, the patient called my attention to a sensation of numbness, and imperfect muscular power of the left upper extremity, and a drawing of the mouth to the right side, which he said had been gradually increasing during the two preceding days; the expression of his countenance was uncomfortable, and his pulse, though small, was quick and hard.

Bleeding to syncope, and a brisk mercurial purgative were prescribed.

At 6 A.M. the following day, I found him hemiplegic; the muscular power of the left half of the body being com-

pletely paralyzed. Sensation imperfectly continued, whilst the circulation and temperature of the affected parts was natural. He passed evacuations involuntarily, and the urine was retained. He was heavy and drowsy, but complained only of pain in the sciatic nerve; percussion in the course of the spinal column caused no uneasiness.

The head was shaved and cold applied, 30 leeches to the occiput, calomel purgatives and low diet prescribed.

8th February.—The paralytic symptoms unrelieved; frequent dark stools pass off in bed.

Thirty leeches to the cervical spine, and calomel purgatives continued. Catheter passed, and oz. iv. of fætid ammoniacal urine drawn.

9th.—No change for the better. Thirty leeches to the base of the head and cervical spine; calomel purgative and catheter passed.

10th.—He appears somewhat exhausted by depletion, and the smart action which has been kept up on the alimentary canal. Pulse small and quick, countenance anxious; paralytic state of the left half of the body continues complete. Mouth affected by mercury.

Blister from the back of the head to the sacrum. Pul. Jalap. comp. zi. at 7 A. M. Strychnine gr. ½ every 3 hours —milk diet and sago. Urine drawn off.

11th & 12th.—The same remedies continued without advantage.

13th.—During last night he passed a small quantity of urine, and he can now retain the fæces until a bed-pan is placed under him; he can also raise the extremities from the bed. Remedies continued.

14th.—Passed 4 oz. of fætid urine in the night, and three voluntary stools; has more power over the extremities, and the features are less distorted.

16th.—Gradually improving under the same treatment; can now carry his arm up to his head.

21st.—Has been progressing since the last date. He can at this time walk, drawing the limb awkwardly after him, and raise the arm over the head; the muscles of the face have recovered their action, and the angle of the mouth is scarcely observed to incline to the right side when he speaks.

Medicine continued. Chicken diet.

March 13th.—Has perfect use of the whole of the lately paralyzed parts, but he feels weaker on that than on the opposite side.—Strychnine discontinued.

A mild aperient every moning.

April 23d.—Discharged perfectly cured, and in good health.

No tetanic or apparent nervous excitement was occasioned by the internal exhibition of Strychnine.

WALTER RALEIGH,
General Hospital."

With these two extracts we must close our present notice of our new contemporary.

Clinical Review.

St. Thomas's Hospital.

Clinical Reports.*

The clinical reports from this hospital, edited by Mr. South, continue to be published. The third number lies before us. The editor displays but little desire to distinguish himself in his editorial capacity. A diurnal report of a case is given, and the surgeon, or physician, or reporter appends some observations of a clinical character at its conclusion. There is little system exhibited in the pamphlet, which we fear will not prove a very lucrative speculation to those who are concerned in it. But this is their business—it is ours to present a sketch of the reports.

These are six in number. First, there is a report from Dr. Roots on Porrigo Lupinosa, and hysterical paralysis—then one from Mr. Tyrrell on compound dislocation of the clavicle backwards—then, again from Dr. Roots, on chronic dysentery—again, from Mr. Tyrrell on diseases of the joints—from Dr. Williams, on idiopathic erysipelas treated with wine—from Mr. Travers on encysted tumor, and diffused tuberculation. Such are the contents of the third number of the St. Thomas's Reports. We will select what seems to us most deserving of attention in each article.

I. Porrigo Lupinosa.

A case of this description was admitted under the care of Dr. Roots. The patient, a man 38 years of age, had also inflammation of the chest, which was relieved by antiphlogistic treatment. Then the porrigo was taken in hand. After the crusts had been removed by poultices, the individual hairs were carefully extracted by means of tweezers, and the tar ointment was applied. Under this plan, with occasional slight alterations to meet circumstances, the patient improved so much, that for a week before his discharge from the hospital no new pustules had appeared.

Dr. Roots makes or made some clinical remarks upon the case, which are characterised by good practical sense. The gist of them may be said to be this—treat these eruptions of the scalp on rational principles. When there is much irritation, use mild or sedative applications—poultices—goulard wash or mild ointments. As soon as irritation and inflammatory action have subsided, make use of a stimulating application to the scalp. The tar ointment frequently succeeds, but, if it fails, creosote, the pyroligneous acid, solutions of nitrate of silver, and so forth, may be tried. Whatever application be resorted to, the hairs must be gently and carefully picked out of the affected parts by means of tweezers. We extract that portion of his observations which bears directly on the treatment. His description of the complaint is of course addressed to and adapted for pupils.

"As regards the plan of treatment generally, there is no one plan that you can lay down as being generally successful, but you must treat porriginous affections of the scalp precisely as you would treat any other disease for which you may be called to prescribe—namely, you must treat it according to its existing condition. Generally speaking, you will find, as a local application, the tar ointment one, I think, of the most useful, but there may be so much excitement going on in the skin, that the worst treatment you could possibly resort to would be the application of a stimulant, which the tar ointment is. If then there be much inflammation, you must make use of sedative applications, cold; perhaps the application of lead in its various forms, cold; the liquor plumbi subacetatis dilutus, or rags dipped in cold water. If the inflammation or irritation is not excessive, but still too great to admit of the

* St. Thomas's Hospital Reports. By John F. South, Assist. Surgeon.

use of any stimulant, then perhaps the ceratum plumbi acetatis, the ung. zinci, or a mild sedative ointment of that sort, may be the best. Supposing that there should be considerable constitutional excitement, and I have seen a few cases attended by this, then I should not hesitate to rest entirely on antiphlogistic measures; I should not hesitate where there was much fulness of habit even to take blood, under some circumstances, from the general system. But, though you might not have great constitutional excitement, you might have considerable local excitement, so much local excitement that you might not think the mere application of cold lotion or other sedatives would be sufficient to remove it. Under such circumstances you may be obliged to resort to the application of leeches; I have done so in many cases, and continued the application of leeches from time to time, in conjunction with cold lotions, until the inflammatory action has been reduced. In practice you will find that, during the treatment of this affection, you will very often have to change your plan. In the first instance, for example, you may find that a stimulating ointment may be necessary; you may employ the pure tar ointment of our Pharmacopœia, and you may find that that is not sufficiently stimulating, and you may be obliged to combine it perhaps with some other, as the ung. hydrar. nitrat., or in some instances, as I have occasionally done with advantage, the ung. sulphuris compositum of our Pharmacopœia. I have applied this for some days together, till eventually I have got more excitement in the part than I wanted. My object was to get a certain degree of excitement; this has been exceeded, and then I have been immediately obliged to change the plan of treatment, in order to subdue the degree of increased excitement which was unnecessary for the cure of the disease, and to resort, perhaps, for a few days, to sedatives merely, to ung. zinci, or plumbi acetatis, till the excitement has been partly diminished, and then perhaps again to have recourse to tar ointment, either pure or moderated by the admixture in a certain proportion with some of the ung. zinci. Generally speaking, you will find that though you may wish to produce a certain degree of excitement, yet that it will be better to do it gradually. For example, commence with an ointment somewhat of this form: one part of ung. picis, either with two or three parts of ung. zinci, and then by degrees, according to the local excitement, diminish the latter and increase the former, till perhaps you may use the ung. picis pure."

We notice this case, and these observations more particularly, because they enable us to remark, that eruptions are treated by many practitioners, in far too empirical a manner. The general principles which regulate our management of other disorders, are frequently overlooked in the instance of eruptions, and the surgeon having heard that such an application is of service for a cutaneous complaint, applies it unhesitatingly and indiscriminately, no matter what the stage or what the condition of that complaint may be. Yet the skin is perhaps more affected by varying states of system, and sympathises with other parts more closely, than any other tissue in the body. It is remarkably prone to alterations of vascularity, and to inflammatory action; and when inflamed, it is just as likely to be injured by irritating applications, as the lungs, or the liver, or any membrane, if exposed, would be.

The important rule in the treatment of eruptions, is, to subdue inflammatory action, before specific remedies are used. Whether the disease be porrigo, or eczema, an exanthema or a trivial patch of herpes, this principle of treatment must be acted on. Of course the amount of depletory measures, and the nature of the sedative, must be determined by the state of the particular case, and the knowledge and judgment of the surgeon.

II. HYSTERICAL PARALYSIS.

The case we will now introduce is an important one—important, at least, to him, who is of opinion that the real use of physic is to understand disease and cure it.

Case. A married woman, æt. 24, admitted Sept. 12th, 1835, under the care of Dr. Roots.

States that four years ago she had an attack similar to the present, but regained perfect power over the side affected. About twelve days since she was seized with great pain in the head, and vomited about a table-spoonful of coagulated blood. The pain in the head having continued two days, whilst sitting on her bed, she suddenly fell down insensible. She continued in this state for twelve hours, at the end of which period she recovered her senses, but the right side of her body was paralysed. For a long time she was unable to speak, and the pain in the head remained unabated.

On admission, the right arm and leg were perfectly paralysed, but the face was not implicated in the attack. The pain in the head continued, though somewhat less intense in character. The sounds of the heart were natural. Pulse 75, small. She was low-spirited, cried at times, and complained of a frequent sensation of choking; having, also, tenderness of the epigastrium.—Power over the bladder remained perfect.

The treatment consisted in the use of the hyd. c̄ cretâ—leeches to the epigastrium—and milk diet. The pain in the head diminished, and by the 18th, she had regained some power over the paralysed arm. But she now suffered from globus hystericus, and palpitations. The pulse was 78.

On the 22d, the pulse was 86. On the 26th, it was 98. She could move the arm much better, but had no power over the leg. She fainted almost every day. *Diæta sicca.*

29th. *Hirud.* xvij. *epigast. Quart of beef-tea daily.*

On the 2d of October, she had perfect power over the arm—there was still some pain in the head and drowsiness. Pulse 100.

Omit. Hyd. c̄ Cret. Emp. canth. inter scapulas. ℞. *Infus. valer.* ℥iss. *Sod. carb.* ℈j. *Sp. ammon. arom.* ʒj. *Tinct. hyos.* ℥ss. *ter die.*

On the 6th she felt better, but had no power over the leg, which, she said, felt numbed.

C. c. ad ℥x. *regioni sacral.*

On the 9th she was put on ordinary diet. On the 13th, she was able to move the toes of the affected leg. She was ordered a pint of porter daily. On the 16th, she could walk without assistance. Frictions with mustard were prescribed, and a mixture containing quinine was given. On the 27th, she could walk without assistance. The uterus continued inactive. On the 6th of November, after a fright, she had several fainting fits, and complained of much pain in the lower part of the back. For this she was cupped over the sacrum. On the 17th, she could walk nearly as well as ever. She had still occasional fits of hysteria.

Dr. Roots makes a great many observations on this interesting case. We will notice those which bear immediately on its more important features.

"You will remember," says the Doctor to his class, "I related to you, that, four years before she said she had been the subject of a similar attack to the one for which she was admitted. How long it lasted I do not exactly know, because it is not noted down; but it is quite certain that she recovered perfectly the use of the affected side.

With regard to the symptoms, when she was attacked twelve days before her admission, she complained of great pain in the head, and stated she had vomited a table-spoonful of blood. Whether she did or did not, I do not know; there was no proof of it; but, as it is asserted, I am bound to believe that she did vomit some blood. The pain of the head continued for two days, and then she fell into what is termed *a fit*, and remained insensible for twelve hours. During these twelve hours it is stated she remained perfectly still. On arousing from this state, she could not speak for some time after. However, it does not appear that much, or even any thing was done, but the power of speech returned, leaving behind not the slightest vestige of paralysis about the muscles of the face, or of the tongue. But at the same time that she

lost the power of speech, she lost the power of volition over the right arm and the right leg, and also the power of sensation in them. In conjunction with these, you are to remember that she was low-spirited; that she cried at times; that she occasionally fainted; and complained of a choking pain in the throat, and of pain at the epigastrium.

What was the condition of the brain, or what was the condition of a portion of the nervous system, which gave rise to this paralysis? It is quite clear that it could not be connected with any thing like effusion; it is equally clear to my mind that it was not connected with any thing like inflammation. It is possible, nay, it is probable, that it was connected with some degree of congestion in a portion of the blood-vessels, which might produce some pressure; some impediment to the function of the nerves, both as regards volition and sensation. It is probable, that during the time that she was lying in a state of insensibility, having lost the power of speech, there was congestion in the vessels of the brain; and that congestion—supposing the state to have arisen from congestion,—must have speedily given way of itself, because there is no proof of any thing being done to relieve her, and, consequently, there could have been no effusion; for you cannot imagine that effusion could have been absorbed so rapidly: neither can you imagine that there was inflammation, because inflammation is not likely to have given way without some active treatment. One, perhaps, in my mind, of the strongest reasons for imagining that there was congestion to a certain extent is this, that, tracing the history of the case before I saw her, I find she was leeched altogether three times during a period of between a fortnight and three weeks, and the pulse, when she came in, is stated to have been 75, but feeble: it remained 75, after even the first application of leeches to the epigastrium; after the application of the second, it became 78; from 78 it soon got up to 86, to 98, and to 100; and as the pulse became quicker, so did the paralysis of the arm diminish."

We think there can be no question of the rationality of Dr. Roots' opinion. That the case was one of those, in which that state of system that we call hysterical was at the bottom of the symptoms, is rendered more than probable by all the circumstances. The age of the patient—a former similar attack leaving no injurious effects behind it—the presence of amenorrhœa, and of decided hysterical symptoms, as globus—the negative proof derived from the absence of distinct symptoms of inflammation of the brain or of effusion on it—and, finally, the effects of treatment, are all characters that mark with tolerable clearness the nature of the malady.

But in hysterical affections it is not unfrequent for local congestions to occur. The constitution of the female, in whom the circulation is periodically disturbed, renders her particularly prone to these irregular determinations of blood, which, aided by an excitable nervous system, produce such strange and undefined disorders.

The cautious surgeon or physician, aware that these congestions sometimes tremble on the brink of inflammation, will, under circumstances calculated to awake suspicion, or in plethoric habits, take care to act on the safe side, and to employ topical depletion. But he knows that depletion must not be carried far, and in most cases must not be resorted to at all, lest it aggravate that state of nervous irritability, which is frequently the cause and always the concomitant of the other symptoms.

There are one or two points in the present case which should not be dismissed unnoticed.

"It was curious," says Dr. Roots, "to observe, with regard to this woman, a fact which is not noticed in the narration of the case, but which I will mention—how strong the influence of the mind was in aiding her recovery. For a length of time she was not able to do more than to move her toes, and gradually to draw up her leg. She seemed afraid; she had persuaded her-

self that she was perfectly incapable of doing it; but, on insisting that she should quit her bed and attempt to stand, telling her that she should be supported by people in the ward, she found that she really was capable of doing more than she had imagined. Still, there was that degree of hesitation, that degree of trepidation, in attempting to use the limb, which made it plain that it was the result, to a considerable extent, of mere fear. In order, then, to work upon her mind, I requested Mr. Clark, who has had the care of her as my clinical clerk, in her hearing, that if in two days no manifest improvement had taken place, he would put on a good blister over the loins, and over the right hip. I desired him not to put it on unnecessarily, but if he found no gradual improvement, then to resort to the blister. By means of the strong impression thus produced, at least, I am firmly persuaded such was the reason she day by day improved, without the necessity of applying it all."

It is a fact well known to the practical man, that whether there be or be not deceit on the part of hysterical patients, their symptoms are much under the control of powerful mental impressions. How constantly does the threat of a bucket of cold water arrest a hysterical fit. The dread of a caustic issue will sometimes cure hysterical pain in the knee. At the Hôtel Dieu M. Dupuytren was in the habit of observing in the hearing of his hysterical patients, that, unless there was improvement by a certain day, he should be under the necessity of applying the actual cautery. That was always an effectual hint.

It is not only charitable, but, from what we know, it is most reasonable to suppose, that in the majority of cases, the patient is under the influence of a feeling that her ordinary efforts are unable to control, and that only an unusually violent influence is adequate to give her the mastery over it. We see so many instances of educated, religious, and highly moral females, who are evidently anxious to escape from suffering, displaying at the same time such hysterical extravagances, as might appear the offspring of positive deception. But all the circumstances, are, in most cases, so opposed to the truth of this idea, that he must be an ignorant as well as a malicious man who can indulge it.

But it must be owned that in some instances there are actual falsehood and trickery at the bottom of the patient's complaints. This unworthy conduct is not confined to the lower class of females, but is occasionally seen in those whose station and whose education too, should induce them to disdain to practice such mean artifices. We have known many instances of retention of urine feigned by females, in order that the catheter might be introduced for them. There have been instances also, of young ladies putting common garden sand in their chamber-pots, in order that they might appear to have been voiding gravel. Sir Benjamin Brodie is in the habit of mentioning a case that occurred to him some years ago, in which a palpable trick was detected. He was attending a young lady of distinction, for pain in the knee of a hysterical character, but attended with such swelling as induced him to suppose that there must be some structural mischief. The means he adopted seemed of little service. One night he was summoned to the young lady in haste, for some nervous symptoms, and he accidentally looked at the leg. He was a little astonished to find a ligature tied round the thigh, so tightly as to occasion the swelling below it, that had puzzled him. It turned out that the lady tied this kind of garter round her thigh every night, in order that her leg might be subjected to examination in the morning.

When we look at the manner in which hysteria sometimes slides into mania, and reflect on its connexion with satyriasis, and chorea, and chlorosis, we may admit that even in such gross cases of malingering as this, the individual is impelled by an almost uncontrollable impulse. The ordinary motives of action are inadequate to explain her disgraceful conduct, and the philosopher must allow, that although, for the sake

of morality and decency, such behaviour should be reprobated and put down by chastisement, yet Nature pleads in *his* ear her excuse. The interests of society, and of the female herself, require that that excuse should not be listened to. In this, as in some of the forms of monomania, more good results from considering the individual as strictly responsible for actions, than from yielding to the plausible apology of reason. It is certain that strong sentiments, whether of hope or fear, of duties to be performed or of disgrace to be encountered, will always enable the individual to curb, and not unfrequently to subdue, the tendency to impropriety.

2. The mode in which the paralysis declined is properly adverted to by Dr. Roots.

"I am quite sure every one is aware, that in paralysis arising from any effusion having taken place in the brain, either from simple effusion or from rupture of a vessel in the brain, that the arm, the nearest point to the seat of disease, is the last that recovers. You rarely see hemiplegia arising from effusion taking place in a portion of the brain, I can almost say *never;* at least I do not myself ever remember to have seen it: but the recovery of the lower extremity long precedes that of the upper, and very often nearly perfect recovery of the lower extremity takes place, while there is not, perhaps, even as long as the patient lives, the slightest improvement in the upper extremity. I was quite clear then, even from this circumstance, that there was no mischief going on or existing in the brain."

Dr. Roots makes some remarks on the treatment of hysteria, which do not seem to require particular notice. We therefore pass to the succeeding case.

III. COMPOUND DISLOCATION OF THE CLAVICLE, BACKWARDS.

This case may be quickly dispatched. The patient was an excavator, and the accident happened from earth falling in upon him, and driving a pick-axe against his chest. The sternal end of the clavicle was dislocated backwards, so that it lay on the trachea, behind the first bone of the sternum. The wound was extensive. A back-board with straps to keep the shoulder back, was sufficient to re-adjust the bone, and the patient did extremely well.

IV. CHRONIC DYSENTERY.

The diurnal details of a case of this kind are related. But they are tedious, and the following abstract of the chief particulars, presented by Dr. Roots in his Clinical Lecture, presents a correct and sufficient account of them.

The patient was a sailor, aged 39, just returned from the South Seas. He had been exposed on his voyage home to hard weather and bad food, and his complaint had commenced three months prior to his entrance into the hospital. He then had the usual symptoms of dysentery.

"The first part," says Dr. Roots, "of this man's treatment—during the first twenty-six days—consisted in the application of leeches; in the exhibition of starch and opium injections, with the occasional exhibition of a dose of castor oil, and a very limited mucilaginous, farinaceous diet. My reason for ordering the leeches must be apparent. It was quite clear he was suffering under chronic inflammation of the mucous membrane of the large intestines, and I considered that chronic inflammation possessed too much activity of character to permit my depending upon opium, or astringents, or mercury alone. My reason for ordering him to take hydrargyr. c̄ creta was, that he had been in a hot climate, that there seemed to be evidently functional derangement, at least about his liver, and I ordered him the mercury rather for the purpose of obtaining a more healthy condition of the liver, than with the idea of curing the chronic inflammation of the bowels. The starch and opium injections were, of course, merely directed to be given for the purpose of relieving the tenesmus, and to some extent the tormina. The castor oil was exhibited, because one of the common symptoms in dysenteric affections, whether acute or chronic, but

always in the acute form, and occasionally to some extent in the chronic form of the disease, is, that a portion of the feculent matter is retained. There is spasmodic action of the muscular fibres of the bowel, and though there is great griping, and frequent calls to relieve the bowels, yet the feculent matter is often retained, and becomes an additional source of irritation; and, therefore, likely to increase the inflammation.

You will observe that, under this plan of treatment, with a grain of opium every six hours, the symptoms were to a certain extent alleviated; he had better secretions, he had less tormina, less tenesmus. But the mercury did not cure him; though he was kept under its influence for nearly twenty-eight days, yet still the irritation of the mucous membrane of the bowel was not at all diminished. It was then, that having lessened by means of leeches and blisters the inflammatory action of the bowel, that having produced better secretions from it, and a more healthy secretion of the liver, I thought I might begin to enter upon the exhibition of a more powerful astringent than opium, and therefore it was I combined the vegetable astringent of kino with opium and the sulphate of copper. You saw from the case he was again somewhat relieved, though still the bowels were too irritable, and it was speedily necessary to increase the dose of compound kino powder to twelve grains; and at the same time I ventured to increase the dose of sulphate of copper to three-fourths of a grain. This the stomach would not bear—vomiting was produced—and therefore it was speedily diminished to half a grain; and at the same time the dose of compound kino powder was increased to a scruple. Sulphate of iron was afterwards ordered in conjunction. My reason for ordering the latter was, that, from his generally debilitated condition, I thought he would bear a tonic of that kind, experience having told me that similar cases had often been advantaged by it. From that time, for a period of ten days, he certainly seemed better when taking the iron; but again the symptoms recurred, again irritation was produced, he could not bear even half a grain of sulphate of copper; nay, it was with difficulty that a quarter of a grain was retained on the stomach, except through the aid of hydrocyanic acid. But though the hydrocyanic acid did enable him to bear that small quantity of the sulphate of copper, yet still the irritability of the bowels was not diminished.

These mineral astringents, sulphate of copper and sulphate of iron, (for the sulphate of iron is possessed to a certain extent of some degree of astringency,) in combination with the opium, the irritability likely to be produced on the stomach being also prevented for a time by the exhibition of hydrocyanic acid, still were unable to relieve the irritability of the mucous membrane of the bowels, and therefore it was I determined upon trying the nux vomica. I did not give the nux vomica in what I consider a very large dose, because I have given as much as fifteen, eighteen, or twenty grains every six hours. I have given it to out-patients of this hospital; I have given it repeatedly in St. Pancras Infirmary, without finding it produce those constitutional effects which it did in this man. However, in consequence of the twitching and spasmodic action of the muscles, I abandoned it at the end of two or three days. Then it was that, finding the mineral astringents had not produced any real benefit upon the man, I had recourse to a very slightly-increased dose of compound kino powder, that is, from twenty to twenty-five grains every six hours, and giving him at the same time another very powerful vegetable astringent—the infusion of galls. Under this simple plan of vegetable astringents the man got entirely well."

Dr. Roots makes several judicious observations on the character, and pathology of dysentery. Being addressed to students, they are, of course, of an elementary nature, and require no notice from us. The only point to which we think it necessary to advert, is to our author's experience on the best mode of managing this troublesome disorder.

When there are pyrexia and much

pain, he employs, as all good physicians do, local depletion by means of leeches and counter-irritation. He has found blisters most useful; but the tartar-emetic ointment has also been of service.

The warm bath is beneficial.

Dr. Roots has never seen mercury cure dysentery. He appears to give it merely with the view of producing a better secretion and better condition of the liver. Few practical physicians believe that mercury will remove chronic dysentery in such a climate as this. Its employment in India is another thing, for all the circumstances there are different. Yet at the same time we think that Dr. Roots has rated it too low in this country. When we reflect on the influence that mercury exerts on the mucous membrane of the alimentary canal—on its power of restoring or of altering its secretions, as well as the secretion of the liver—on the fact that in dysentery the functions of the mucous membrane are greatly disturbed—on the frequent complication of much inflammatory action with the slighter dysenteric affection—when we reflect on these circumstances it seems reasonable to suppose that mercury would be, at least occasionally, useful. We think that the experience of most medical men is in its favour—not as absolutely curing dysentery, but as adapted for its earlier and more inflammatory stage—preparing the way for astringents, and rendering their employment more safe.

Opium, in one form or other, and to a greater or a less extent, is indispensable.

Astringents are extremely useful. Of course they are adapted for the later stage of the complaint, after the inflammation and the severer spasm are relieved. Astringents may be exhibited even when it is necessary to leech or blister, in consequence of pain and tenderness. But if much excitement is re-established, the astringents must of course be discontinued, till that has been removed. Dr. Roots speaks judiciously of the sulphate of copper. He does not affect to have found it always successful; on the contrary, he admits that he has often seen it fail. This agrees with our own experience. Neither does he pretend that it is a tonic—quite the contrary. In this case the compound kino powder, in the dose of twenty-five grains every six hours, and conjoined with galls were successful; but Dr. Roots properly observes that, although a particular astringent may succeed in one case, it does not follow that it will answer in another. The following are his remarks on the infusion of galls.

"With respect to the power of the infusion of galls, I remember the first case in which I ever saw it exhibited was whilst I was Assistant Physician to this hospital. It was a case which my friend Dr. Elliotson requested me to see, indeed, it occurred in his own coachman. Astringents to a great extent, and if I remember right, sulphate of copper, had been given without effect. We agreed between us that we would give the infusion of galls with opium, and it was taken with the most marked beneficial result: since that time I have continued occasionally to use it when other remedies have failed, and with considerable advantage. It is a very nauseous medicine, and there are few patients who will submit to take it. I had a patient in private practice, a lady, who suffered under chronic inflammation of the mucous tissue of the bowel, of long standing, who attempted to take this remedy, but after the third dose, she said that, in point of fact, she would rather die than take such nauseous medicine."

V. DISEASES OF THE JOINTS.

A series of cases of diseases of the joints are reported. We have at different times, of late, adverted so fully to this class of maladies that it would be unprofitable to allude to them again at present. The majority of the cases before us present indeed no particular features of interest, with the exception of one, to which we shall direct attention.

CASE. *Supposed Inflammation of the Internal Lateral Ligament of the Knee.*

Harriet Wynch, æt. 39, a cook, admitted Sept. 4th, 1835, under the care of Mr. Tyrrell.

States that about two months ago, after much exercise, she experienced pain at the posterior part of the left knee, which shortly became so severe, as to compel her to leave work. She then went into the country, and by rest and quiet, the pain having subsided, she returned to her situation; but in the course of a few days, the pain recurred with increased violence, and was particularly severe during the night, so as to materially disturb her rest.—Leeches were applied, but without benefit.

When admitted, she complained of a dull aching pain at the posterior and inner part of the knee, especially towards evening, and during the night. The posterior part of the joint was somewhat swollen, and extremely tender.

Hirud. xxiv. *genu. Hyd. sub.* gr. j. *omni nocte.*

The leeches relieved the pain in the knee for a short time, and she was subsequently cupped over the vastus internus muscle, but with little benefit. The pain at night continued severe, and disturbed her rest. Opium was exhibited, first in the dose of half a grain, then in that of a grain every night. It gave her more rest, but occasioned headache and costiveness. In consequence of the continuance of headache, the opium was given up, and the galbanum pill with henbane substituted for it. We should observe that two blisters, and mercurial ointment had been applied to the knee. The subsequent reports we will extract.

" Nov. 4.—She rests better at night, but complains of more pain in the knee, the inner part of which is very tender. *Capt. Pil. bis quotid. Applic. Cerat. Sapon. et Opii part. æqual. genu.*

Nov. 11.—Sleep undisturbed, and says she has less pain in her knee than since her admission; but pressure on the inside of the joint still gives pain.

Nov. 18.—The pain in the knee very severe last night, and the joint very tender. ℞. *Tinct. Valer. Ammon.* ʒj. *Aq.* ʒxj. *bis die.*

Nov. 25.—Much the same, but complains that her rest is again disturbed by pain in the knee. She has frequent tremors of the limb, lasting about ten minutes, after which the pain is very much increased. The whole joint is tender, especially at its inner and posterior part, to which the pain is principally referred. Headache at times very distressing. ℞. *Ferr. subcarb.* ʒss. *ter die.*

Dec. 2.—Pain and tenderness of the knee much the same. Complains of throbbing in the joint, and has occasionally extreme heat on its inner side, continuing for about a quarter of an hour, and followed by a corresponding degree of coldness. Trembling of the limb occurs more frequently, and the pain is greatly increased for a short time after its cessation. The headache at times very distressing, and chiefly referred to the forehead and temples. Appetite impaired. Alvine secretions of a very dark colour, and exceedingly offensive, with torpor of the bowels. Uterine functions natural. ℞. *Assafœt. Gum.* ʒss. *Aq. Fervent.* ʒviij. *ft. Enema tepid. alt. noct. injiciend.*

Dec. 8.—Complains of tightness across the chest and cough; rest at night still much disturbed;—headache relieved;—secretions natural, and appetite improved. The knee remains in the same state.

Dec. 10.—Left the hospital to-day, and directed to take the following, instead of the former medicine. ℞. *Ext. Coloc. c.* ℈j. *Ext. Hyoscyam.* ℈ss. *Ext. Aloes c.* gr. jss. *divide in pilulas* vj. *quar. capt. duo alt. noct. Mist. ferr. c.* Oj. *Tinct. Castor.* ʒj. *fiat Mist. cujus capt. cochl. duo ampl. bis die.*"

The following are the observations of Mr. Tyrrell upon the case.

" The case of Harriet Wynch (page 307) has been an interesting one, inasmuch as, in the first instance, there were symptoms indicating acute inflammation of the internal lateral and posterior ligaments. Perhaps the situation in which the affection was described by her to exist, led me not to go so far into the history of the case as I might otherwise have done, and this, in combination with the description that I

misunderstood, that she had been relieved by counter-irritants and leeches, led me to presume that it was a case of common inflammation of these ligaments, which would be relieved again, I considered, by rest and the treatment from which she had previously derived benefit. I, therefore, in the first instance, attended to the secretions, and in consequence of there being a great deal of tenderness, employed local bleeding, first leeches, and afterwards cupping, and then had recourse to counter-irritation by a blister. The little amendment however that took place, and more particularly the description of the pain, induced me to look a little farther, and I then found that she had the nervous, tremulous pulse belonging to hysterical patients; that she was frequently the subject of headache, seldom without it; and that this was principally complained of over the forehead. This, however, was a little puzzling, when I came to find that the uterine secretions were in a proper condition: but as I have frequently seen hysteria in a violent degree while the uterine functions appeared good, I was not so much surprised by observing this. I turned my attention more particularly to the general treatment: locally, I applied some ointment and fomentations: but in spite of the remedies adopted, very little progress was made. The fact is, she was apparently losing flesh, and had become more pallid than when she was admitted; she had a weaker pulse, and altogether less power and more headache, although, at times, the headache was slightly improved; she had that peculiar tremor which often attacks persons disposed to hysteria; and other symptoms affecting the knee, which was not so well." "She complained, perhaps, more acutely, if you pressed on the lateral ligament, or the posterior part of the joint; but that is not a matter of surprise.

Supposing that there had been actual ligamentous disease, what would have been likely to occur under the improved condition of the general health; that is, losing power and becoming more irritable? I know if there had been any fibrous disease, what would have been the consequence. Instead of a mere thickening from the deposition of adhesive matter, we should have had ulceration take place, evinced by a further tumefaction, by an increase of pain, by general rigors indicating the commencement of suppuration, and then we should have had the disease go on in this way, but instead of which, you find that one day the report is, the knee is rather better, the pain less, and she rests better; and then a day or two afterwards, without any obvious reason, the pain is aggravated, and the local disease increased: thus there are frequent changes. This is not the character of actual disease of the ligaments; it does not change thus, unless there be some alteration of constitution from time to time, which will enable you to account for the local changes which take place."

If reported cases are to be of service to the public, two things are essential on the part of the reporter—accurate and discriminating observation, and fidelity of description. It is obvious that many facts derive their whole utility and value from the discrimination in them of nice particulars. Two men, for example, may have sores upon the penis. In one, the sore may have a granulating surface, and a thickened substratum and edge. Mercury cures it. In the other individual, the sore has a dark and sloughy surface, no thickening beneath nor around it, and an excavated character. Mercury makes it spread, and it heals under the exhibition of bark and stimulants. If a narrator of these two cases contented himself with saying that each patient had a sore upon the penis, and that in one it was small and not painful—in the other large and very tender, and then were to observe that mercury proved useful in the first, and injurious in the second, it is clear that the reader would obtain no precise information of the causes which rendered its effects in the two cases different.

The cases in the Reports before us have been drawn up by pupils, some of whom appear to be indifferently qualified for executing the task with success. In the present instance, the

reporter is obviously unacquainted with the characteristics of the case he attempts to report, and his report is, consequently, next to useless.

The matter stands thus. Sir Benjamin Brodie (for we are not aware of any surgeon having accurately described the case before him) has pointed out a peculiar affection, which occurs chiefly in hysterical or nervous females, and which is liable to be mistaken for serious disease of the articulation. The patient complains of excessive pain in a joint. There is usually but little, if any swelling. The pain is aggravated by motion, and by examination of any kind. These symptoms are common to several diseases of the joint. They may occur from ulceration of the cartilage, or from inflammation of the bone. There is, therefore nothing distinctive in such symptoms; and were a surgeon to publish a case which presented them, and say that they did not depend on ulcerated cartilage or inflamed bone, we must take his word for it. But Sir Benjamin Brodie did not leave the matter thus uncertain. He remarked that the pain, in these cases of nervous affection, differs from that in organic disease in the following respects.

First, it is unnaturally violent, being produced by causes too slight to affect inflamed cartilage or bone. Thus, the slightest tap upon the skin, or pinching it, will produce excessive pain; more, perhaps, than even pressing the ends of the bones together.

Secondly, the pain may exist remotely from the diseased parts, and in spots which have no sympathy with them. The pain is often, in short, very universal. If the knee is affected, the patient will frequently cry out with pain if you touch the skin of the foot. And she will be pretty sure to do this if her attention is directed to it, and if the surgeon observes in her hearing, that that is always a symptom of her complaint.

Thirdly, if the patient's attention is drawn off, the surgeon may do, unnoticed, all that occasioned such apparently intense suffering but the minute before.

Fourthly, there are the general evidences of hysteria, or of a nervous habit, and commonly the disturbance of the general health is neither of the kind nor the degree which would accompany serious organic disease.

Now, a case drawn up with the view of shewing that nervous symptoms may ape inflammation of the ligaments of the knee-joint, should contain, at least, an allusion to the presence or the absence of such distinctive characters as the preceding. Yet no such allusion, or scarcely any, is contained in the report, which is thus defective in the most essential particulars. Mr. Tyrrell, indeed, in his clinical remarks, very properly supplies in some measure this defect, and observes:—

"The point which convinced me that the affection was not one of actual inflammation of the ligaments of the knee, but a sympathetic disease depending on the peculiar condition of the constitution is this, that if she had inflammation merely of the internal lateral ligament and the posterior ligament, the pain would be confined to these parts, particularly when the limb was at rest, and she would complain of pain, particularly on pressure on those parts; but when you examined the surface of the joint, it mattered little where you pressed, if on the patella, on the ligamentum patellæ, on the space between the internal lateral ligament and the ligamentum patellæ, on the vastus internus, or down below this muscle on the head of the tibia, it was all the same: she complained of pain."

This is a point which is not even hinted at in the report—an inexcusable omission. We are sorry to observe that many of the cases reported by students are by no means calculated to enhance their reputation. They are done in a slip-slop and tiresome way, which, however it may suit a ward-book, is not well calculated for publication.

VI. Idiopathic Erysipelas, treated with Wine.

Dr. Williams relates three cases, and presents fifteen pages of remarks, for the purpose of shewing that idiopathic erysipelas may be treated with wine.

As the stimulating practice is old, and now nearly exploded, and the cases in which it has been adopted numerous, we shall only extract one from the small collection before us. That one is—

Case. "Peter Westneat, æt. 18, admitted into King's Ward, Jan. 21st.—States, that four days ago he was exposed to intense cold for some considerable time. In the evening of the same day he was attacked with rigors, sickness and headache, and on the following day with erysipelas of the face. When admitted the whole face was tinged; the eyes completely closed, and the cheeks vesicated. He complains of a sense of tingling and heat in the parts, with distressing headache; his sleep is disturbed; his respiration hurried; pulse 140, full and soft; great heat of skin; tongue foul and dry; bowels rather confined. ℞. *Pulv. Rhei,* ℈ *Hydr.* ℈j. *stat. Mist. Senn. c. postea.*

Jan. 22. *Vin. rubr.* ʒjv. *indies. Sago—Maranta.*

Jan. 23.—No increase of the local mischief: tongue less dry; pulse 120.

Jan 25.—Swelling of the face subsiding; tongue moist, but loaded; bowels act daily; pulse 108.

Jan. 27.—Expresses himself better in every respect.

Jan. 30.—Improving: the face but little swollen, and the cuticle desquamating; pulse 90.

Feb. 12.—Discharged quite well."

We will, for the present, leave the case, and dodge Dr. Williams through his observations, which are rather devious. He seems to have none of that spirit of doubt, which, by undecided persons, is considered philosophical, but expresses his opinions with the positiveness which becomes the professors of an exact science like our's. Dr. Johnson liked "a good hater;" and Dr. Williams seems to like a good believer—for thus he starts with erecting his creed.

"One party contends that it (erysipelas) is a disease of simple inflammation, and ought to be treated like the other phlegmasiæ, namely, by general or local bleeding. On the contrary, another party, having no theory to support, affirm that a long experience has shewn that bleeding is often highly injurious in the treatment of erysipelas, and that an opposite or tonic mode of treatment is much more uniformly successful. I entertain the latter opinion, and I think it can be supported both by fact and by argument."

The circumstance of Dr. Williams so decidedly supporting the latter party, must materially increase their chances of ultimate success. He adopts the following line of argument. Inflammation, he says, may be produced by mechanical or chemical causes, or by morbid poisons. In the first class are the phlegmasiæ, which require for their treatment active antiphlogistic measures—in the second, various fevers, which a long experience has shewn to be aggravated by bleeding.

But Dr. Williams affirms that erysipelas is also the product of a morbid poison, and a contagious and infectious disease; and, consequently, that bleeding cannot be the rule of its treatment. When he says it is contagious, he is in earnest; for, if we took his opinions au pied de la lettre, erysipelas would be a vast deal worse than the plague which has broken out amongst the men-milliners in Tottenham Court Road. For example, Dr. Williams informs us that, so satisfied of the contagiousness of erysipelas are the medical officers of St. Thomas's Hospital, that they recommended the destruction of some adjoining houses; and a month scarcely elapses without some new and striking instance of it. A case, he says, has just occurred in King's Ward, where a patient of Dr. Roots', who had been some weeks in the house, was seized with erysipelas of the head and face very shortly after the introduction of two cases labouring under that disease into the ward. A fact which, as erysipelas is generally disposed to prevail at certain periods, may possibly not be deemed conclusive.

Dr. Williams, from his experience in St. Thomas's, has even been enabled "to assign some of the laws of the erysipelatous miasmata." It is capable of diffusion through the atmosphere,

and Dr. Williams informs us that it may go fifteen feet.

The contagion of erysipelas also infects substances that have been in contact with the patient's person, or fomites.

And, finally, the poison of erysipelas "probably lies latent from a few hours to about ten days," though the period is not accurately determined.

Such are the laws of the contagion of erysipelas assigned by Dr. Williams. It must be owned, that, considering how many persons doubt if erysipelas is contagious at all, they are not deficient in precision.

Dr. Williams, having thus satisfied himself, and, as he seems to hope, his pupils, that "erysipelas is a contagious and infectious disease, and consequently that it is caused by the agency of a morbid poison," calls upon them "to follow out the consequences of this admission," in the treatment of the malady. Having put the pupils in the groove, he soon shews them how they must run in it.

For, he proceeds to prove that a great many eminent doctors have entertained the most contrary notions on the best mode of treating erysipelas—many lauding bark as a specific—some denouncing all treatment save depletion as ridiculous. The modern apostle of the antiphlogistic method has been Mr. Lawrence. This gentleman does not at all mince the matter, but quietly declares that "the antiphlogistic plan, including general and local bleeding, is *the correct* view and practice; and the opinions of those who take an opposite view are completely erroneous, and the treatment founded on it not only inapplicable, but injurious." This scientific mode of settling a disputed point of practice does not appear palatable to Dr. Williams, who, not at all alarmed at Mr. Lawrence's thunder, proceeds to analyse his observations and his facts, and finds, what cannot be denied, that the former are illogical and loose, and the latter more calculated to tell against Mr. Lawrence than for him. In fact, Dr. Williams' criticisms on Mr. Lawrence's paper are very well founded, both in reasoning and practice, so far as they go; and it is a pity that he has not exposed more fully its serious faults.

It is not necessary to follow Dr. Williams, in his notice of the different modes of practice which different individuals have pursued in erysipelas. The medical world are pretty well acquainted with them. We shall content ourselves with stating the plan that Dr. Williams recommends. It is this.

"My own experience leads me to adopt a tonic mode of treatment, as the great rule in idiopathic erysipelas, but I have for some years abandoned the use of bark. For I observed that, when the patient was treated by bark, he did not become convalescent till his tongue had become brown, and, consequently, not until he had sunk into a typhoid state, that lowest point of depression consistent with life, and at which the poison either ceases to be generated, or else the system is rendered insensible to its further action. At this point, however, but not before, the bark appeared to me to take up the disease, and the patient, in a very large majority of cases, recovered."

Anxious to avoid "the brown-tongue stage," he instituted a number of experiments, and was led to the conviction that the treatment by wine was, and is superior to that by bark, or to any modification of that treatment.

"The mode, then, in which I am in the habit of treating idiopathic erysipelas, whatever may be the part of the body it attacks, or *with whatever symptoms it may be accompanied*, is as follows:—The patient is put on milk diet; the bowels gently opened, and from four to six ounces of port wine, together with sago, allowed daily. This mode of treatment it is seldom necessary to vary throughout the whole course of the disease, and the delirium, if present, is generally tranquillized, and if absent, prevented. The tongue rarely becomes brown, or only continues so for a few hours, and the local disease seldom passes into suppuration or gangrene. In a word, all the symptoms are mitigated, and the course of the disease shortened. I have pursued this treatment for several years, and I hardly re-

member a case in which it has not been successful.

On comparing the effects of wine and bark with those of quinine, the former is much more easy of digestion; its effects are more transient; it has less tendency to affect the head, or to disorder the bowels, and it likewise in no case reduces the patient so low, and consequently there does not exist the same necessity for supporting him. The quantity of wine may appear small, but as it is prescribed on the very first appearance of the disease, it is usually sufficient. Still, in a very few instances, it may be necessary to increase it. This was the case with a young woman admitted only a few weeks ago into this hospital, with excessive erysipelas of the face and scalp; six ounces only of wine were prescribed for this patient, and with this dose the disease showed a tendency to spread down the neck and shoulders; but on the wine being increased to eight ounces the disease was at once arrested, desquamation ensued, and the patient rapidly recovered. In another case also it would appear that a larger quantity of stimulus would have been useful. A patient in Lazarus's Ward was seized with erysipelas of the face and scalp; taking it altogether, the countenance and head generally were more remarkably swollen and enlarged, and hideously deformed, than I recollect to have ever seen. Five grains of the sulphate of quinine were ordered for this patient every four hours, together with eight ounces of wine daily. The patient under this treatment recovered. About two years after, however, he was brought to the hospital with a similar attack of erysipelas, but much milder, as was supposed, in degree. Under these circumstances, quinine alone was prescribed on this occasion, but, to our surprise, he rapidly sunk and died.

It has been imagined that when an extremity, as the leg, was hard, swollen and painful, that the mode of treatment by wine was inapplicable, and that the only resource was in incisions. The following case, however, will show a different result. An exceedingly large and corpulent lady, after a short attack of rigors, was seized with erysipelas of the leg, extending from the foot to the groin, and the whole limb was hard, tense, and incompressible; her tongue was white; she was slightly delirious in the night, and her pulse was 120. Six ounces of wine were ordered daily, and the disease was by this means checked and the pulse reduced to 110; but at the end of four days it was still formidable: two grains of quinine were prescribed, in addition to the wine, every six hours. On the following morning the fever had abated, the pulse had sunk to 90, and in a few days this patient recovered without suppuration, or other local mischief taking place in the leg.

I hope I have been able to satisfy you that the laws of the simple phlegmasiæ are totally distinct from those of inflammation, depending on the agency of a morbid poison, and that there is sufficient evidence to induce us to include erysipelas among the latter class. If so, I think you will see, from the success that has attended the treatment of the cases that have been related, that there is a singular agreement between theory and tonic mode of practice in erysipelas; and the agreement between theory and practice is the surest test and only solid basis of scientific medicine."

It must be a great comfort to a student of medicine to find his preceptors at loggerheads, on the principles and practice of physic. He is certain that let him do what he may, he has some authority to back him. In the present case, it is pleasant to observe the scientific spirit in which each party calls its opponents fools. Mr. Lawrence says complacently—"If you don't think as I do you're completely wrong"—and his adversaries decide that Mr. Lawrence's logic and practice are equally absurd.

To return to Dr. Williams. His are certainly extreme opinions.

Others have contented themselves with thinking that idiopathic erysipelas *may* be contagious. The whole tenor of Dr. Williams's arguments leads us to suppose that he deems it always so. He reasons as though it were essentially a contagious and infectious malady, and never had nor can have any other

origin. If that is not his sentiment we are sure that all who read his paper will suppose so, and, indeed, if it is not, his argument loses its application and force. This is what is called in common language—"going the whole hog." There is a difficulty in getting many to suppose, that erysipelas is, under ordinary circumstances, contagious at all. We are not so sanguine as to think that many will be got to believe that it is always so. They will naturally ask how it happens that traumatic erysipelas, which cannot be imagined to arise, in the majority of cases, from contagion, runs a course so precisely like that of the idiopathic; and how it happens also that both forms usually prevail at the same time? If these questions are answered, many others will follow, perhaps more difficult to reply to still; and, if Dr. Williams is inclined to write, we foresee a series of interesting letters, as numerous, perhaps, as those which have lately passed between his namesake and Dr. Wilson Philip.

Granting, however, Dr. Williams's premiss, we do not see how his conclusion follows from it. If idiopathic erysipelas be a malady of specific origin, that certainly forms an à priori argument against the propriety of bleeding. But we do not conceive that it forms any argument in favour of the exhibition of wine. Measles is a disorder, which has its source in a special contagion, yet we do not treat measles by bark or stimulants. Scarlet fever is a complaint of a similar description, yet in the great majority of cases, scarlet fever is treated by medicines of rather an antiphlogistic character.—Even small-pox does not necessarily call for stimulants, and the great pox, we all know, has its own peculiar remedy. Analogy then, so far as it goes, if it makes against outrageous bleeding, makes equally against universal stimulation. It is in this case a two-edged bistoury which Dr. Williams pokes at Mr. Lawrence, but which Mr. Lawrence, if he feels inclined, may poke again at Dr. Williams. This fight with abstract principles, is, after all, a Laputan War; plenty of manœuvring, but very little execution.

The fact is that the treatment of each disease must be tested by experience of its own results, and not by the effects of remedies in other maladies. The facts of medicine are like those of chemistry, empirical, and analogy can no more be received as proving one than the other. Analogy might lead the chemist to suppose that potassa was a metallic oxyde; but it could not be deemed so till potassium was discovered, and after *its* discovery, analogical suppositions were unnecessary. Analogy, presuming it correct, might lead Dr. Williams to think that wine is good for erysipelas. Whether it is so, is a matter to be decided by its actual results when given for the disorder.

To those results, therefore, Dr. Williams properly appeals; for he takes, in the main, the same view of analogy that we do, and that all, accustomed to reasoning, do also. He affirms that his experience has, de facto, proved wine highly serviceable. We must distinguish between his affirmation and his proof. The latter is quite insufficient; for he only gives the particulars of three cases, and a slight allusion to two more. The position, therefore, stands on his affirmation. Dr. Williams declares that wine is *the* remedy for idiopathic erysipelas in all cases, and *with whatever symptoms it may be accompanied.* It is for the profession to decide if they approve of this uncompromising practice.

For ourselves, we are, like Beppo—

A nameless sort of person;

and we feel almost ashamed to offer a temporising kind of opinion, in the midst of the vigorous practitioners about us. Yet we cannot help thinking that erysipelas is not to be treated on any one exclusive plan. We cannot help believing that we have seen cases, in which the patient was robust, and the symptoms of an inflammatory character, where antiphlogistic treatment was of use—and other cases, certainly the majority in London, where the symptoms were disposed to be low and typhoid,

and where ammonia and wine were beneficial. There is, no doubt, a great difference, in different cases, in the general condition of the patient, the tint of the erysipelas, the pulse, the tongue, and so on; and it sins against our general experience of disease, if those differences are to be made of little account, and one kind of treatment, be it wine or bleeding, indiscriminately followed up. It must be remembered that, if erysipelas is not itself a phlegmasia, it occasionally gives birth, like measles, scarlet fever, and small-pox, to distinct phlegmasiæ. We have seen patients, labouring under erysipelas, die from sudden inflammation of the pleura, the pericardium, and the peritoneum. At one time, we saw a good deal of the use of bark, and then these complications were frequent.

So far as we have seen of erysipelas, and we have watched it rather closely, we are certainly disposed to rank it with the exanthemata. It is ushered in with preliminary fever, and it usually runs a pretty constant course. These circumstances shew that it is not likely to be safely cut short by powerful depletion; and so far we agree with Dr. Williams. But, on the other hand, there is a good deal of inflammatory action mixed up with it, and, as in the exanthemata, there is a natural tendency to cure, if the natural operations are not materially disturbed. The practice applicable to the exanthemata in general, appears to us to be applicable to erysipelas—to watch the case with assiduity and caution—if the patient evinces a disposition to prostration, to exhibit stimulants—if decided inflammatory symptoms supervene, to deplete. What it may be in the country we know not, but we are sure that, in town, it is more often necessary to stimulate than to lower. About the third or fourth day, the patient usually begins to flag; and then it is that ammonia, or perhaps wine, must be substituted for the salines and the mild aperients previouly exhibited. If, however, we must adopt, which fortunately we need not, an extreme practice, we would much rather cleave to Dr. Williams than to Mr. Lawrence—to wine than the lancet.

VII. DIFFUSED TUBERCULATION.

Case. "Sarah Creed, æt. 32, admitted into Dorcas's Ward.

June 6th, 1833.—Has always enjoyed good health. Seven years ago received a blow upon the left breast, and in about three months detected a small tumour in the part, which was occasionally very painful; for three years it did not make any material progress. It amounted to the size of a walnut, the integuments remaining healthy. In about six months from that time, ulceration took place, and the wound remained stationary for nearly a year: during this interval, she used various stimulating applications. She then came under the care of Mr. Green in this Hospital, for a period of thirteen weeks; the wound healed and she felt quite restored. Shortly afterwards a chain of tubercles, superficial, colourless, hard and painful, were observed extending from the nipple of the left breast to the boundary of the axilla; these continued to form, and ulceration of the cicatrix soon followed; the tubercles seemed to bind the skin to the subjacent muscle. She was now readmitted into the hospital under the care of Mr. Travers, at which time the whole of the left breast was absorbed, and the integuments in that situation were one mass of tubercle, irregular, livid, hard, and painful, with some minute spots of ulceration, and accompanied by a sero-purulent discharge; health but little affected. Ordered *Ferri carbon.* 3j. *ter die. Opii*, gr. j. *o. n.* Simple applications."

Hydriodate of potass—arsenic—the liquor potassæ—the strong nitric acid, were successively used and abandoned. On the 6th of November, we find the following report.

"Disease progressing. The whole of the right breast absorbed, and the integuments, from the clavicles to the umbilicus, are now one continuous mass of tubercle, hard and contracted; the cellular membrane is quite absorbed, and the skin firmly attached to the muscles, through the medium of the tubercles; several on the neck and back are yet in an incipient state, no disco-

loration of the skin, but hard, small, semi-transparent, acuminated pustules appear, and when these reach the size of a small pea, they become fixed and painful, and the skin turns livid. The creosote was now tried and continued until it disagreed with the stomach."

In January, 1835, she was ordered to take the iodine in substance, half a grain of the iodine pill being given thrice daily.

"*May.*—Disease extending in every direction.

Aug.—The disease is now quiescent, tubercles having extended as far down as the groins; there is a single patch of ulceration about the centre of the chest; the swollen arm, which is hard and erythematous, has been for some time placed in a swing-box, suspended form the head of the bed.

Dec.—The treatment seems now beginning to influence the disease, and the part certainly looks much better. The menses suppressed for the last three months. ℞. *Acet. Morph.* gr. ss. *omni nocte. Cont. Pil. Iodin.*

Jan. 23, 1836.—The part now presents a very peculiar aspect from the clavicle to the umbilicus; the structure of the integuments is entirely changed; the surface has the appearance of cicatrices of a livid colour, uneven, hard, immoveable, the cellular membrane beneath being entirely absorbed; this new structure or diseased skin is firmly attached to the parietes of the chest and abdomen, and it is covered for the most part with scales; there is a small ulcer at the lower margin of the sternum which looks clean but dry, and not disposed to heal. The lower part of the abdomen is scattered over with many single, and many clusters of tubercles, which are now increasing (these were formerly very painful on coming out over the chest); the skin is but slightly discoloured and elevated, and without pain. The back, from the cervical to the lumbar region, also the sides, are covered by flat tubercles running into each other, constituting a reddened, glazed, and elevated integument; the whole of this (where the integuments have been described as firmly fixed) callous, and free from painful sensation. The lower abdomen is very prominent, great general hardness and fullness may be felt, and there is some pain on pressure in the left iliac region. Her health and spirits are very tolerable; she is troubled with occasional headaches, but the only complaint she makes is of pain in the chest, of a shooting pricking character, and the least excitement brings on palpitations of the heart somewhat violent, which continue for hours; digestion good, bowels regular, pulse and tongue natural; the catamenia restored; the arm remains much in the same condition, and she still occasionally suffers from erythema and general irritation, but in a far less degree than formerly: she is still taking the iodine in the same small doses.

Mar. 3.—Better, both in health and locally. She has had a copious catamenial discharge, attended with considerable constitutional excitement. The ulceration upon the sternum is healed, but there is still some creeping ulceration in various parts of the chest. The arm is well, and of its natural size. No fresh tubercles can any where be discovered.

Mar. 25.—Ordered to omit the iodine."

This is an instructive case. Mr. Travers makes many valuable observations on malignant tumors in general, and on the conduct which the surgeon should pursue in doubtful cases. We are sorry that we have not space for them. But we will conclude the present Report with his remarks on the preceding case.

"The disease in Creed's case is new to my experience. The skin is implicated from the commencement with the subjacent texture, for neither can the tubercle be raised, nor the skin raised nor moved upon it; both are fixed. The tubercle is in no degree corn or wart-like, being at first smooth and semi-transparent, like horn, at its apex, for it is conical, and some so acuminated as, at first sight, to resemble vesicles; they afterwards become broad and flattened and coalesce in clusters, and the most central ulcerate. Gangrenous ulceration is the second mode of inflammatory action: there is always a slough

at the seat of ulceration; the absorption of cellular membrane, by the close adhesion of the tuberculated skin to the parts beneath, being so complete, that no bed for granulation remains. The healing is, in fact, absorption only of the decayed parts, and a process of puckering and shrinking in those around, like the crumbling caries in bone. The hardness of the integument is equal to that of the firmest cartilage. First one mamma and then the other became absorbed, and now the whole back and front of the chest are so enmailed, while the integument of the abdomen and loins, plentifully besprinkled with the tubercle, both isolated and in clusters, binds down the abdominal muscles.

The disease having first opened with what was supposed to be a scirrhous tumour of the breast, and after the slow and imperfect healing of its ulcer, the tubercles appearing in and around the cicatrix, and in the line of the absorbents towards the clavicular and axillary glands, and the mamma becoming absorbed by adhesion of the whole integument, straitened by callous induration to the ribs, are circumstances which, taken together, remind us so forcibly of one variety of quickly destructive scirrhous cancer as almost to set scepticism at defiance. But to this variety to which I allude, of universal induration and immoveable attachment of the mamma to the ribs with tubercles of the integument scattered here and there around it, with which all are familiar, the present case bears no real resemblance, owing principally to the uniform and strongly-marked character and seat of the primary tubercle, the obliteration of cellular substance, so extensive as to convey the idea of the chest being literally skin-bound, and the intermixture of the several stages of the action, the decay by partial ulcerations, and the repair by a process of puckering of the agglomerated tubercles in livid bridles and ridges intersecting each other in every direction, and leaving hollow interspaces of a paler colour. Neither does it resemble in any degree the tuberculated sarcoma nor the insulated medullary or fungoid tubercle of the integument, nor the condylomata, sometimes seen in groups and patches of considerable extent, in various regions of the body. In its destroying and healing process, it most resembled lupus, but in this only was the analogy. The health has been, on the whole, less disturbed than could have been expected; the excessive œdema of the left arm from destruction of the superficial absorbents has exposed it to painful attacks of erythema, but this was greatly relieved by suspension of the limb. Local applications only of the simplest kind to the sore, as bread and water poultice, or the watery solution of opium and the white wash, have given any relief; the gnawing pain, attended by pungent heat and bright scarlet redness, has been at times very severe for days together; the signs of arrest of the diseased action and recovery of the part have been the general subsiding and shrinking of the tubercular elevations into a more uniform surface, in some parts glazed and in others scaly, the cessation of pain, and the darker, *i. e.* more purple hue and diminished heat of the whole. There has been frequent sickness and loss of appetite, sleeplessness, with more or less febrile irritation, but no cough, no internal pains, no considerable wasting, no symptom of established hectic, or visceral disease. Iodine was the only medicine in the use of which there was temptation to persevere; and during its exhibition for a period of many months, the change, from increasing local devastation and gradual constitutional failure, to her present state of nearly confirmed recovery, has taken place. The catamenia also have been restored. Certainly the change worked by this extraordinary medicine came to the relief of my fears, that the disease was malignant; it may yet become so, for it is a subversion of structure to a formidable extent of surface, and such changes are always in this sense dangerous."

QUEEN'S COUNTY INFIRMARY.*

REPORT FOR THE YEAR 1835. By Dr. JACOB.

Dr. Jacob enters on many circumstances connected with the extent, funds, and so forth, of the establishment, to which, as they possess only a local interest, it is unnecessary for us to advert. We shall content ourselves with extracting here and there from the report, such matters as appear to be possessed of any general interest.

Rapid Recovery of Lunatics from Injuries.

"Amaniac was admitted—under the influence of a superstitious delusion he effected castration within a few weeks previous to presenting himself at the Infirmary, where he arrived in a state of absolute starvation, having wandered from the County Wicklow with the hope of inducing me to amputate his hand, which he had himself endeavoured to blow off with a pistol shot, at the loss however of only one finger. He continued obstinately to refuse food for many days, though on admission he appeared in a state of almost total inanition. By the persevering administration of nutritious diet, by means of the stomach-pump, his strength was re-established; the wound went on to heal kindly; he was induced to take his food voluntarily, and was delivered to his friends in safety. I have had several opportunities of observing the extraordinary celerity with which lunatics recover from injuries calculated to endanger the lives of persons enjoying perfect health; their wounds generally unite by first intention, fractures become quickly consolidated, and they rapidly recover from the most serious casualties under very disadvantageous circumstances."

The circumstance dwelt on by Dr. Jacob, has frequently attracted observation. Probably the occupation of the lunatic's mind with a subject foreign to the corporeal injury, and his usual want of solicitude for its consequences, may account, in some measure, for his recovering so surprisingly as he sometimes does. It is certain, however, that persons who cut their throats seldom do well, although the injury may not be very formidable in itself. They frequently fall into a typhoid state, and die with erysipelas, or cellular inflammation, or secondary abscesses.

Anomalous Hysterical Affection.

Dr. Jacob admitted two females, whose cases the following passage will describe. The girls were young, and the affection was obviously one of those irregular hysterical or nervous maladies, which are almost as various as the combinations of the kaleidoscope.

"At frequent and irregular intervals during the day, and without any obvious cause, sudden paroxysms took place; every inspiration was effected by a spasmodic effort, and attended with a sound resembling that produced by hiccup, but infinitely louder and more shrill, so much so as to be readily heard throughout the entire house; considerable uneasiness and sense of oppression being at the same time felt at the epigastrium. The paroxysm frequently continued for an hour, and left the patient much exhausted. The pulse was accelerated, the tongue loaded, the appetite impaired, bowels confined, catamenia suppressed, and considerable tenderness experienced on pressure over the region of the stomach and liver. The administration of fetid aperients, cupping and blistering of the epigastrium, with a light nutritious diet, invariably afforded complete relief; but the disease frequently recurred in some time after the patient's discharge."

Both functional and organic affections of the stomach would seem to prevail among the lower class of Irish. Their insufficient food, and privations of all sorts, afford a satisfactory explanation of the circumstance.

Erysipelas would seem to have been common. Dr. Jacob would appear to attach much faith to the local application of the nitrate of silver.

* Dublin Journal, May, 1836.

Mode of treating fractured Cervix Femoris.

"In fractures of the cervix femoris I act upon the presumption that ossific union may take place, and, as I conceive, with beneficial consequences, I have invariably found that the patients on whom most pains had been bestowed to retain the fractured portions of bone in accurate juxta-position and immoveable, ultimately recovered the most perfect use of the limb. I have succeeded to a considerable extent towards effecting this object in the following manner:—The patient being placed in bed, a strong cotton stocking, to either side of which a stout bandage had been sewed along its entire length, is drawn on the leg above the knee, it is then firmly secured on by pinching it up, and sewing it tightly when drawn as wide as it can be stretched. This being done, a very considerable degree of extension can be exercised by means of the attached bandages, the pressure of which, instead of bearing upon one point, is equally diffused over the knee, calf, ankle, and instep; the closeness with which the limb is embraced, prevents the occurrence of any degree of subsequent swelling, and the necessary degree of counter-extension can be kept up without inconvenience or danger of sloughing; the extremity is next extended to its proper length, and placed in position; the thigh is surrounded with the tin splints and cushions already described, the front one being connected with, and forming a limb of a large splint, on which chiefly depends security from motion. It consists of a shield or plate sufficiently large to cover the greater part of the anterior surface of the abdomen, the sides being hollowed for the reception of the spines of the ilia; from this a limb runs down over Poupart's ligament along the front of the thigh, which it assists to envelop; a stuffed cushion preserves all parts from pressure; the lower portion is secured with the other splints to the thigh by straps; the upper by bandages round the pelvis. A very considerable amount of counter-extension is then made by means of Desault's splint, to which the tails of the stocking bandages are tied; a thick pad is next placed high up between the thighs, and both limbs bandaged firmly together. In this way the leg and thigh of the injured side are used as a lever, the pad between the thighs serving as a fulcrum, and any pressure calculated to cause a shortening of the neck of the bone, or the entrance of the neck into the cancellated structure of the shaft prevented. The bandages running from the stocking to the Desault's splint must be kept from time to time carefully tightened. To derive real benefit from the treatment, the patient should remain from two to three months in bed, and forbear to use the limb for a much longer period. By this method I have had cases recover with little perceptible lameness, but in no instance did I succeed in preventing a slight degree of halt. A laced stocking of Indian-rubber web, with suitable bandages, may be an improvement upon what I have been in the habit of using."

Fractures of the skull are extremely frequent, a melancholy proof, as Dr. Jacob remarks, of the sanguinary spirit of the people.

Swallowing of Pins.

The following observations on the effects of swallowing pins, or, indeed, other foreign substances, are, though simple, not unworthy of attention.—Patients constantly maintain that the foreign body is still sticking in the throat, at a time when the sensation is merely the effect of the irritation that some part of the œsophagus has suffered. It is frequently necessary to pass an œsophagus-bougie, and to declare that this has pushed the substance down into the stomach. But to return to Dr. Jacob.

"Amongst the list of cases is one who swallowed a pin: she came to me from an adjoining county, complaining of very distressing symptoms, and I was therefore obliged to admit her for a few days. Females to whom this accident may have occurred constantly come to me for the purpose of having the pin removed. If it so happen that it may have passed down the œsophagus, it is almost impossible to convince the pa-

tient that it does not remain in the throat. She points to the situation of either corner of the os hyoides as the seat of all her troubles; there she feels the soreness, increased by every attempt to swallow, and there she obstinately insists she can distinctly feel the pin when she passes her finger down the throat. It may be readily supposed that her efforts soon induce a degree of inflammation, which renders the illusion more confirmed, as conjunctival vascularity induces a sensation of sand in the eye, or inflammation of the fauces a feeling of a foreign body there. On passing down the finger we may ourselves for a moment remain in doubt. The muscles of the pharynx being thrown into a state of spasmodic action, force the cornu of the os hyoides forcibly against the mucous membrane, and the sensation communicated to the finger resembles strongly what might be expected from the presence of a large pin lying across under this membrane. That this mistake, into which even a practitioner may fall, might lead to serious consequences, is proved by a case which came under my care not long since. A young girl having allowed a pin to slip down her throat, lost no time in proceeding to a neighbouring surgeon. She felt quite satisfied that she could place his finger where it lay at the butt of the tongue, as is commonly described. He examined the throat, and felt so convinced of its presence, that he made a deep incision at the side of the os hyoides for its removal; I need scarcely add, without effect. He was favoured by fortune, and escaped injuring any of the large vessels, but considerable inflammation supervened, and the girl was obliged to seek admission at the Infirmary, where she slowly recovered. Much better had he committed the harmless deception, sometimes practised by my father, of slipping into the basin a pin answering to the description of the one swallowed by the patient."

Remarks on the Mode of using the Catheter in some Cases of Retention of Urine.

The following hints are not undeserving of consideration. Dr. Jacob is speaking of a case of retention of urine, with numerous false passages, and a very diseased condition of the urethra. After all but himself had failed in introducing the catheter, and after he himself had not succeeded in numerous attempts, he goes on to state:—

"I carefully introduced a silver catheter of No. 11 size, which is nearly a quarter of an inch in diameter, kept it closely directed along the upper surface of the urethra, and passed it on till it hitched against the opening of one of the false passages immediately at the bulb; I then passed my finger into the rectum, brought it firmly against the catheter, the handle of which I quickly depressed, using the instrument as a lever, my finger as a fulcrum: the point passed up behind the arch of the pubis, and entered the bladder. This manœuvre I had before tried in vain with instruments of the ordinary size. The poor man has had several returns of his complaint each year, and I have always succeeded in relieving him in this manner, latterly without difficulty, as I suppose in consequence of the false passages having become contracted, and the urethra more open by the repeated introduction of the instrument. I have by the use of the instrument, in several instances, succeeded in affording relief which other hands had failed to effect, and I have found it particularly useful in cases of retention from enlargement of the prostate gland. Within the last few months, I was called to a neighbouring county to visit a gentleman advanced in life, who had been labouring under retention for four or five days, and on whom three well-qualified practitioners had made several efforts on different days to introduce the catheter, and consequently abandoned the attempt as hopeless, and made up their minds to puncture. By the use of the large instrument, in the manner already described, I effected the desired object without either delay or difficulty. The prostate was much enlarged and indurated; a large sized gum-elastic catheter was kept in for some time, but the bladder has not yet acquired the power of emptying itself, and thus the patient

is obliged frequently to introduce the instrument himself. I find that I can use a metallic instrument with more confidence than the gum-elastic, and I believe it to be safer than the latter with its stylet. I have, however, sometimes observed that the flexible instrument might be introduced when the silver one could not; it has occasionally happened that by passing on the gum-elastic instrument with a strong stylet, till it meets with the obstruction, then firmly fixing the stylet with the left hand, and urging the tube forward with the right, the stylet being kept unmoved, it will enter the bladder, though this could not be effected in any other way. I have found this plan more useful than the partial withdrawal of the stillette for the purpose of shortening the curve of the instrument, or raising it over an obstacle in the passage."

Malignant and Hæmorrhagic Tumors.

The following case is additionally interesting, when taken in connexion with the case of diffused tuberculation, which we have extracted from the third number of the St. Thomas's Hospital Reports.

Case. A female aged 45, had from infancy a small tumor about the size of a pea over the left malar bone, it was unproductive of any inconvenience, she took it off by means of ligature; it reappeared, and she a second time removed it in a similar manner fifteen years since; it did not again return, but left a small mark, to which she paid little attention. About a year previous to admission, this part began to swell immediately after she had discontinued nursing. In six weeks a tumor was formed as large as an orange, tender to the touch and fluctuating; she punctured it with a large needle, which caused an abundant discharge of blood, but of no other fluid. Shortly after ulceration set in with considerable activity, attended with frequent hemorrhage and paroxysms of severe pain; another tumor soon after formed under the left ear, of an irregular shape, hard, and the seat of severe lancinating pains. Becoming alarmed, the patient applied to a countryman who professed to cure cancer; he put a plaster on the ulcer of the face, to remain on for four months. This application induced the most violent pain, which she endured with fortitude for the prescribed period; during this time several small tumors formed in different situations, their appearance being generally preceded by a degree of sickness, the part about to be affected becoming tender and inflamed. On removing the plaster, she found that all the soft parts beneath it had been destroyed, and the cheek-bone laid completely bare. From week to week the tumors became more numerous, and her health progressively gave way.

When admitted she presented an extraordinary appearance. She was excessively emaciated. The left malar bone, and the anterior and outer third of the orbit, lay completely denuded, and presented the appearance of bones which had been exposed for half a century in a churchyard; the soft parts had cicatrized around, and lay in firm contact with the dead bone. The globe of the eye had fallen in, and little trace of it remained. The situation of almost every gland was occupied by a carcinomatous tumor. The left parotid was much enlarged, reached forward on the cheek, as high as the zygoma, and halfway down the neck; it was of almost stony hardness, very irregular on the surface, and prevented the mouth from being opened wider than half an inch. The situation of the mammæ was occupied by similar productions resembling the healthy gland in size. Several hundred tumors of various sizes, from that of an orange to a grain of snipe shot, were studded over the trunk and extremities; those on the trunk being larger than on the limbs, and those on the lower extremities larger than on the upper: they were more numerous and closely situated near to them at a distance from the centre of the circulation, and appeared in great numbers along the course of the large absorbent vessels. The liver felt enlarged and irregular as if also affected, and several hard tumors were to be felt in different situations through the abdomen. In

the larger sized alone did she suffer pain, which was of a severe lancinating character, and particularly distressing during change of weather. She laboured under a most distressing sense of weight at the præcordia, her respiration was in some degree embarrassed, she had frequent and profuse perspirations, but the bowels acted naturally, and the catamenia had continued to appear from time to time at irregular periods. In a few days after her admission she was attacked with erysipelas, and left the house.

Dr. Jacob has observed two cases of what he terms hæmorrhagic tumor.

Both presented at first the appearance of cancerous warts; one was situated in the lower lip of a young female, the other connected with the external jugular vein of a man aged about forty years; their structure was highly vascular, and the tops covered with a kind of horny crust, on the removal of which blood commenced to drop quickly, and usually continued to flow for a considerable time. From that over the jugular vein it occasionally burst forth in a small jet, and continued sufficiently long to induce considerable debility. Styptic or astringent applications proved ineffectual, the knife was alone found sufficient for their cure.

Glasgow Royal Infirmary.

On Phlebitis, particularly as connected with Secondary Abscesses. By James Douglas, A.M. Late House-Surgeon to the Glasgow Royal Infirmary, &c. 8vo. pp. 48. Glasgow, 1835.

This Essay was submitted to the faculty of physicians and surgeons of Glasgow, when the author was a candidate for admission into their body; but if it had no further claims on our attention than this, we should not have considered it worthy of notice.

There are few branches of medical knowledge, which have sprung up so exclusively from the recent cultivation of pathology, as our acquaintance with the phenomena and consequences of phlebitis, and with the secondary inflammations that occur after accidents or operations. The gradual progress of information on these points may be said to have occurred under our immediate inspection, as almost all that has been done for its advance has been within the last twelve years.

When it was ascertained that deposits of pus may occur in any viscus, or, in many and various parts of the body, after local injury or an operation, it was generally supposed that some strange state of the nervous system was the cause of their occurrence. But, as dissections were obtained in greater numbers, and practised with more care, and as they shewed that inflammation of the veins of the injured part very frequently preceded the secondary affections, it was concluded that phlebitis and absorption of pus were the agents that produced them.

Some plausible objections have been urged against this, as an exclusive or universal theory; and we think that the opinions of the best informed members of the profession on the subject are at present far from settled. Whilst the faith in the sole agency of the nervous system has been much shaken, the belief in the constant antecedence of phlebitis to the secondary inflammations has not yet been firmly established.

Mr. Douglas has paid much attention to this interesting and important investigation, and he advances some views, which he has been led to entertain, with a great degree of confidence. He has been anticipated in these views by Cruveilhier, but they are entitled, notwithstanding, to the careful consideration of the profession. We shall therefore lay them before our readers, so fully as to make the latter sufficiently acquainted with them.

The object of Mr. Douglas is to point out the connexion between phlebitis and the secondary inflammations, and the immediate mode in which the latter are occasioned. He describes in order: — the primary phlebitis — the secondary affection — and finally the relationship of both.

1. *Phlebitis.*

We do not think it necessary to enter on the circumstantial description of the history, the symptoms, or the anatomical characters of phlebitis. Our readers must be sufficiently acquainted with them. We shall merely select a point or two for observation.

1. After stating that phlebitis is a common consequence of injuries either to the vein itself, or to the parts in which it is situated, Mr. Douglas remarks:—"Idiopathic phlebitis has been rarely observed in the extremities, but I believe cases have occurred in which the varicose saphena has inflamed without any surgical interference, and a spontaneous cure has been the result."

It has occurred to us to witness several instances of idiopathic inflammation of the saphena vein. In one instance it followed exposure to cold—in the others it occurred without any ostensible cause. The patients were, with the exception of the one in whom cold was the apparent cause, of a bad habit of body, and in indifferent health. They all recovered, with obliteration of the canal of the saphena vein, which was felt as a hardened cord. The symptoms, which were severe, were checked by the application of leeches and blisters, and the exhibition of calomel and opium internally.

We may observe, that we once saw fatal inflammation of the saphena and the femoral vein, from what seemed to be a very slight injury. A man, rather advanced in life, and of a bad constitution, was admitted into St. George's Hospital, on account of an extensively varicose condition of the saphenæ veins. In order to relieve him, he was kept in bed, and the house-surgeon one morning tapped the vein with his fingers rather smartly. Phlebitis rapidly succeeded, and proved fatal in very few hours. A good example of the danger of even the most trivial interference with the veins in some individuals.

2. Mr. Douglas remarks that inflammation of the visceral veins is more frequent than is usually supposed, and that it wears the symptoms of simple inflammation of the organ. Andral gives two cases of inflammation of the veins of the liver. Our author has seen three, and subjoins one.

Case. A labourer, aged 26, admitted Nov. 19, 1833. Situated in right hypochondrium is a firm, hard tumor, about the size of an orange. It is freely moveable under integuments, and sometimes is found higher or lower in abdomen, according to the position in which patient has been for some time previously. There is some feeling of connexion to the liver, but not distinct. There is pain on pressure. Pulse 110; tongue red at the edges, but furred in the centre; bowels torpid.

Tumor was first observed eight weeks ago, after an inflammatory attack, supposed to be hepatic, at which time it was as large as now; it then increased, and finally, for the last month, has been decreasing under the use of iodine, both internally and by inunction. Slight catarrhal symptoms have supervened on his journey yesterday.

Leeches—castor-oil—mild aperients—blue pill—and cupping to the region of the liver were prescribed.

On the 26th, there being diarrhœa, the pills were discontinued, and mercurial inunction substituted for them. The diarrhœa, however, persisted—frequent leeching and cupping were necessary—and on Dec. 5, he was so low as to require whiskey and water.

On the 15th, we find him labouring under profuse sweats, and occasional rigors in the night. After this the weakness increased—the pulse remained above 100—the tongue was florid and smooth. On the 20th, there was an attack of pain at the epigastrium. In the night of the 21st, he vomited a pound of blood, and next morning had an evacuation of grumous blood. The tumor was now found to have disappeared. On the 11th of February he died.

Dissection. A quantity of albuminous milky fluid was found in peritoneal cavity. Liver not enlarged, its substance less yellow than natural. Internal membrane of vena portæ in all its branches inflamed and covered in most places with a layer of coagulable

lymph. Some of the branches were filled with pus, and looked like small abscesses when a transverse section was made. Vena portæ healthy at its entrance into the liver, the diseased appearances stopping abruptly. The venæ cavæ hepaticæ were healthy. Gall-bladder pale, and nearly empty, the fluid in it thin, and of a pale yellow colour.

The tumor was found to consist of a mass of cancerous glands united together, placed between the layers of the mesentery, immediately below the superior transverse portion of the duodenum. Within it was a cavity more than two inches in diameter, with ragged walls, and on its left side was a communication with the duodenum immediately below the pylorus by a perforation an inch wide. Beside this, there were one or two ulcers on the pylorus, but there did not appear to be any carcinoma of the stomach.

"It is worthy of remark," says Mr. Douglas, "that the case presented the appearances of hepatitis, and was treated as such both before and after admission. Yet no mark of inflammation of the substance of the liver was found on inspection, and the pain must have resulted from the affection of the veins. The lymphatic and purulent effusions, and their abrupt commencement, exhibit the same characters as in external inflamed veins. The length to which the disease was protracted, was remarkable as compared with the generally rapid progress of traumatic phlebitis."

It is by no means so obvious to us, that the inflammation of the vena portæ can be regarded as the cause of all the pain and inflammatory symptoms. There was a malignant tumor in the mesentery, involving, of course, the visceral nerves, producing ulceration of the duodenum, and giving rise also to ulcers on the pylorus itself. Are these to be regarded as trifling affections, and to be set aside in the consideration of the causes of the symptoms? When we reflect how little local pain usually attends phlebitis even in the extremities, how frequently indeed the femoral and iliac veins are found completely choked with lymph and pus when they were not even suspected of being diseased at all, we must pause before we can agree with Mr. Douglas in the present instance. It is most probable that the phlebitis, in this case, was secondary, both in time and in importance. The acuter symptoms were no doubt induced by the ulceration of the duodenum and pylorus, and the inflammation of the vena portæ contributed only to accelerate the patient's death. Such is a fairer estimate of the circumstances than that put forth by Mr. Douglas.

3. Mr. Douglas alludes to an assertion of M. Cruveilhier's, that he has seen more fatal cases of phlebitis after trepanning operations for the removal of necrosed or otherwise diseased bone, than after any other surgical operation; and he thinks that the danger is much enhanced by repeating the unfinished operation, while the parts are in a state of inflammation.

A case occurred about a year ago in London, where fatal inflammation of the dental and maxillary veins followed the extraction of a tooth. Pus was found in the veins of the brain.

This does not at all accord with what we have ourselves seen. It has happened to us to witness a great number of cases of operations for the removal of sequestra in necrosis. At St. George's Hospital, the operation has been performed, perhaps, more frequently than at any other. Yet we do not recollect a single instance in which that operation produced phlebitis, or the secondary inflammations. This is remarkable, because there is scarcely an operation, the most trivial, that we have not seen give rise to one or the other. Of course there is no reason why this should be exempt from consequences of such common occurrence, and our not having seen it in any instance followed by them must be regarded as, in some measure, accidental. But on the other hand, we conceive that accident must have occasioned the extreme frequency of the circumstance, within the observation of M. Cruveilhier; and if we have seen it less frequently than natural, he has seen it more so.

2. *Secondary Inflammations.*

In considering these, we shall do as we have done in the examination of Mr. Douglas' remarks upon phlebitis — merely select such points as appear to us to be novel, or to require examination.

1. The following is our author's description of the anatomical characters of the secondary inflammations. His whole theory hinges on what he here states.

"Their anatomical characters present three distinct stages. The first consists in a bloody infiltration, firmer than the surrounding healthy structure, pretty accurately circumscribed, and generally assuming a globular form, except where modified by approaching the surface. In its substance, one or more minute veins full of pus may sometimes be distinguished. In the second stage, a section exhibits the inflamed portion firmer, and of a blackish colour, while in the middle there is a yellowish white purulent deposit of a circular form. The pus is not liquid, or in a free cavity, but is concrete and as if infiltrated, while the remains of the displaced tissue, like blackish cellular substance, circumscribe it into lobules. In the third stage, softening has taken place from the centre to the circumference, the cellular shreds have disappeared, and a perfect abscess has been the result. These collections, when situated at the surface of the viscera, act as irritants to the serous membranes which cover them, and a layer of coagulable lymph is generally effused over them. Two cases have been recorded, in which the inflammation ran so high that gangrene of the lung took place. I do not set this down as a fourth stage, because it does not form part of the regular course of the disease, and because it may take the place of either the second or third stage.

If attention be paid to the situation of these abscesses, they will always be found around a venous trunk, whose branches may be traced into them. When small, particularly, they may be compared to a bunch of grapes, to which the small veins serve as pedicles. These small veins, filled with pus, and with discoloured and thickened coats, may be traced into each deposit; while in the second stage and in the third, they may be traced to its edge, where they are found to end abruptly. Sometimes a vessel of considerable size is seen thus truncated.

The liver and lungs are the commonest seats of purulent deposits; next to them the spleen, kidneys, and brain. Other parts, however, are subject to them as well as the viscera, such as the muscles and the cellular tissue. In these parts, likewise, capillary phlebitis is always found."

The first case which induced our author to believe that the secondary inflammation was, in fact, capillary phlebitis of the part thus secondarily inflamed, is detailed. It is as unsatisfactory as a case, adduced to prove such a point, can be supposed to be. A man was attacked with pain in the region of the liver, for which depletion and salivation were ineffectually employed. At the end of five weeks, rigors and perspirations supervened. In twenty-six days more, a fluctuating swelling was perceptible externally. This was punctured and matter was obtained; but hectic was established, and the patient lived until nearly five months from the commencement of the symptoms. On dissection, the liver was found to contain numerous abscesses, from the size of a hazel-nut upwards, and one larger than the fist, connected to the ribs, some of which were carious. The branches of the vena portæ were inflamed, contained pus and false membranes, and terminated insensibly in the abscesses. The colon adhered to the diseased liver, and was inflamed and perforated at that part; and the psoas muscle was black from sanguineous engorgement. A quantity of serum was found in all the serous cavities.

Mr. Douglas has "no doubt that the phlebitis of the vena portæ was the primary disease." We have very great doubts upon the subject, and for the following reasons. In the first place, the case ran the ordinary course of inflammation and suppuration in the liver; and not at all the ordinary course

of phlebitis. Mr. Douglas gets out of this difficulty, by supposing that the phlebitis was of a subacute character. In the second place, the fact of the branches of the vena portæ being filled with pus and lymph, offers no conclusive evidence of primary phlebitis, because, in malignant deposites in the liver, that vein is found to become filled at last with the cancerous matter.—The structure of the liver is so much made up of the ramifications of the vena portæ, that it would be singular if, when suppuration has extensively occurred in it, purulent matter was not sooner or later contained in them, and inflammatory action propagated along them. Finally, not to mention other reasons of inferior force, we must always lean, in doubtful circumstances, to the belief in the ordinary, rather than the extraordinary fact, and it is more likely that abscess in the structure of the liver, a comparatively common affection, should occur, than inflammation of the vena portæ, an uncommon one.

This was not an instance of secondary inflammation. Mr. Douglas relates a case in which such inflammation of the lungs took place. We will only extract the notice of the dissection, as that exhibits satisfactorily enough, the implication of the venous radicles in the deposits.

"There were old adhesions of pleuræ on each side. In substance of lungs were numerous purulent depôts, presenting the usual infiltrated curdy aspect. Into some of these the pulmonary veins could be traced, exhibiting thickening of their coats, and containing masses of coagulable lymph of a bright yellow colour, adhering to their inner coat. There were also two abscesses in right lung, containing each about ʒij. of liquid pus.

Liver very yellow, large, and soft; on its surface were numerous yellow spots, under its peritoneal and fibrous tunics, in the centre of each of which was a small globule of air. It was afterwards ascertained by injection, that these were the extremities of the portal veins: their coats were not inflamed."

Mr. Douglas quotes a case from M. Cruveilhier, in order to shew "one variety of phlebitis," that which takes place in bones after compound fractures. The case is short, and we cannot do better than extract it in our author's words.

Case. Pierre Niles, groom, aged 30, on the 29th July, 1830, received a gunshot wound in the knee-joint, comminuting the femur. Amputation was performed in the Hospital Beaujon. He went on well for twelve days, no fever, the wound healing to a wish. All at once violent rigors came on, lasting for some hours, followed by a profuse sweat, which remained all the rest of his illness. Wound became dry, covered with a grey crust, and the muscles retracted. No pain was complained of either in thorax or abdomen. Meanwhile strength sank; pulse became slow and irregular; and death took place on the 28th August, in a state of considerable emaciation, a month after the operation, and on the eighteenth day from the first rigor.

Inspection.—The spleen, liver, and lungs presented analogous alterations, which we may consider as three periods of the same lesion.

The spleen, smaller than usual, was here and there studded with dense spheroidal masses of a deep red. Liver presented on its surface large spots of a slate colour, which when cut, exhibited irregular masses, more or less deep, marbled with white spots, each of which was evidently formed by a glandular grain infiltrated with concrete pus. In the lungs were numerous complete abscesses.

A search was now made for primary phlebitis, but neither the veins of the stump nor those in other parts of the body presented any alteration. Upon making a longitudinal section of the remaining part of the femur, however, its cells were found filled with pus.

Let us look at the point to which our author has brought us. He affirms that where secondary inflammations follow local injuries, a double phlebitis *always* occurs: the veins of the injured part inflame first, are filled with pus, and convey it into the circulation; then,

the veins of some other part, of the viscera, or the muscles, or the cellular tissue, inflame secondarily and give rise to suppuration around them. To do justice to our author we must give his conclusions a little more in detail.

"To explain," he says, "how phlebitis produces secondary abscesses, I consider myself authorised to state, that pus in the circulation is their invariable cause.

In all the dissections in which purulent deposits have been found, pus has been found in the veins, when it has been carefully sought. One or two cases must be excepted, in which the disease ran a long course, and the diseased veins had become closed by lymph through a great part of their trajet, where undoubtedly pus must have been secreted. Were it not necessary that actual pus should be in the circulation, why would not visceral abscesses take place after other primary affections? Were it otherwise, why should we not have secondary deposits after large common abscesses as well as after traumatic abscesses? We often see a large abscess disappear suddenly; the pus has been absorbed, and must be in the blood, yet there are no deposits. The reason is plain, it is altered in its absorption."

We cannot say that we perceive the force of this reasoning. It is an instance of the petitio principii. Mr. Douglas first tells us that pus in the circulation is the invariable cause of the secondary abscesses—then that a large common abscess will disappear suddenly, from absorption of the matter into the circulation—yet that no deposits take place, *because* the pus is altered in its absorption. How does he know that it is altered? By what mechanism or what process is the alteration effected? We have at present only our author's ipse dixit for it, and the alteration seems to have no other foundation than simply his opinion that it *ought* to take place. But to proceed.

"We can only conceive of three ways in which pus could get unchanged into the current of the circulation, *viz.* injection into the veins, imbibition by their open mouths, and suppuration of their cavities. Experiments, to be afterwards mentioned, prove the efficacy of the first. The second never takes place, for before suppuration comes on in a wound, the veins have adhered; and even were we to grant that they remained open, and that imbibition could take place through them, the necessary deduction would be, that deposits should occur in every case of suppurating wounds, which is a plain *reductio ad absurdum*. Suppurative phlebitis, then, is the only mode which fulfils the required indications, for here pus is actually secreted into the current of the blood.

I have now arrived at the same point as Mr. Arnott, and I think I have brought forward some additional *facts* and arguments in proof of that conclusion. I have now to go a step farther, and point out the precise manner in which pus in the blood gives rise to secondary abscesses."

Mr. Douglas alludes to the doctrine of the translation of pus, and to the opinion that although the secondary abscesses are not merely the effects of translation, they depend on some mysterious alteration of the blood. He repudiates these notions, and pledges himself to prove distinctly the three following points:—1st, that the visceral abscesses depend universally on inflammation of the minute veins in the substance of organs; 2d, that these inflamed veins produce a circumscribed engorgement and suppuration around themselves; and 3d, that the circulating pus acts by irritating the coats of these vessels, and exciting them to inflame.

1. "In every case of secondary abscess, above detailed, which I dissected since I met with the inflamed vena portæ, I have been able to trace inflammation of the minute veins of the part. These are generally very small, so that it is just possible to slit them up with the scissors. In Case VIII. it was impossible to lay open the cavity of the inflamed venous radicles in the spleen and kidney; but by scraping and washing away the surrounding substance, they were left firm and round, filled with pus, which could be squeezed out

of their cut extremities. In pursuing such investigations, I cannot sufficiently inculcate minuteness and accuracy. In this same case there was no obvious primary phlebitis; yet so convinced was I of its necessary co-existence, when I had seen the visceral deposits, that I returned to the examination of the prostate, and it was only after slitting up eight or ten different branches that the diseased ones were detected.

With regard to the lungs, I am a little in doubt whether the seat of the inflammation is in the pulmonary arteries or veins. The dissections which I have already made lead me to place it in the veins;—Cruveilhier, however, states that he found the clots, and pus, and other marks of phlebitis, in the pulmonary arteries."

Our author is very confident, for he reproaches those who may differ from him on this subject with carelessness in their dissections, or with learning pathology by proxy, and promises that if they examine the bodies of the dead as minutely as he has done, they "will indubitably arrive at the same results."

2. The inflamed veins produce circumscribed engorgement, inflammation, and suppuration around themselves in the substance of organs. The name *deposits*, which has been so long applied, is unfortunate, in as much as it tends to maintain the notion which was formerly believed, that the same pus which had passed into the circulation, was again deposited from it, without the inflammation of the substance of the organs in which the deposit takes place. Now it has been already stated, under the head of anatomical characters, that the first stage of these abscesses is a sanguineous engorgement, occupying a circumscribed space, into which, by-and-by, pus is secreted, till a complete abscess is formed.

3. The most recondite portion of our author's theory is yet to come. It is that which affects to deal with the *mode* in which these secondary inflammations of the veins take place.

"The pus acts by irritating those vessels and exciting them to inflame, through which its globules probably pass with difficulty.

While passing through the larger veins, it has not time to make any impression upon them, but when it gets into the capillaries where it is retarded, and becomes applied to the lining membrane, which indeed is the only part of the vein found in the parenchyma of organs, it excites inflammation of the membrane, and consequently of the substance around it.

There is no doubt that pus, although considered a bland substance, is able to produce irritation in the vessel with which it comes in contact; the fact has been experimentally determined. Pus has been injected into the veins of animals, and phlebitis and purulent deposits have been the result. But as it was impossible to detect the precise position of the particles of pus which caused this inflammation, recourse was had to mercury, a substance which could not possibly become incorporated with any of the animal fluids. A few globules were injected into one of the meseraic veins of a dog, and on dissection, red spots were seen in the liver, some of which had proceeded to suppuration, and in the centre of each of which was seen a globule of mercury, in one of the terminal branches of the portal vein. All the branches of the vena portæ were found full of pus.

When the mercury was injected into the femoral vein, similar effects were produced in the lungs, around the globules. In a rabbit which survived for two or three months, tubercles were deposited around the globules and the abscesses. It is scarcely necessary to remark, that the rabbit is very subject to tuberculous formations.

Injection of mercury into the medullary canal of the femur, produced the same effects as when thrown into the femoral vein. Its entrance into the veins of the bone was undoubtedly favoured by the manner in which their mouths are kept open by their attachment to their bony canals. This experiment is an additional confirmation of the fact already stated, that deposits after compound fractures depend on inflammation of the diploic or cancellous veins.

From the consideration of the ana-

tomical fact, that the pulmonary vessels are the capillary termination to the blood from the extremities, and that those of the liver are the same to the blood from the intestines, it might naturally be expected that after phlebitis in the extremities, deposits would be found in the lungs alone, and that only phlebitis of the meseraic veins would affect the liver. It does not, however, appear from observation, that the pus necessarily affects any one organ; it may pass through the lungs to the liver, and vice versa, and may obstruct veins in other viscera, or in the cellular substance, or muscles of another extremity. I have already noticed, in a case of prostatic phlebitis, that neither the lungs nor the liver were secondarily affected, but the spleen, kidneys, and substance of the heart, although lesion might have been expected in the lungs, as the prostatic plexus empties itself into the internal iliac veins."

Such is a view, indeed an ample one, of the contents of this Essay. We have laid the principal facts and opinions of Mr. Douglas before our readers, and it only remains for us to offer a few observations upon them.

From what we can gather in conversation, it would appear that many gentlemen regard the investigation of phlebitis and of the secondary inflammations, as rather amusing than practical. They affect to smile at those who pursue it, as persons of a theoretical turn, who are diverted from the study of matters of daily interest, to the pursuit of novel and fanciful pathological researches. There cannot be a more palpable blunder than this—one which stamps those who commit it as ignorant and routine men, who are totally unacquainted with the nature of many cases they daily have occasion to treat. In private as in hospital practice, the secondary inflammations are not an unfrequent cause of death, and he who does not know their characters, will be little likely to anticipate their coming, and will be confounded when they actually occur.

The secondary inflammations are so common, that an exact acquaintance with their causes is a matter of the utmost consequence. Such an acquaintance alone offers us a chance of preventing their occurrence, and prevention appears to be the only way in which we can hope to diminish their fatality.

We must distinguish the observations of Mr. Douglas into those which relate to matters of fact, and those which are essentially opinions. The facts on which he insists are these.

1. That phlebitis is the invariable cause of the secondary abscesses.

2. That those secondary abscesses are themselves the result of a secondary phlebitis, the inflammation being seated in the venous radicles.

We will begin with speaking to the first point.

When Mr. Douglas asserts in so positive a manner that *he* has always found phlebitis in those cases where secondary abscesses followed, he affirms a fact within his own immediate cognizance, and which we can therefore take upon his testimony. But we do not think that his opportunities or reading justify him in pronouncing that all who institute a careful examination *must* necessarily arrive at the same conclusion. M. Velpeau assures us that he has looked for phlebitis, in the presence of those who believe that it always exists, yet he has not succeeded in finding it. Great as Mr. Douglas's authority may be, accurate as his investigations have been, we cannot suppose that they are strong enough to upset M. Velpeau's statement. Granting even that pus may be found in some inconsiderable venous radicle, we are not quite sure that our knowledge of the state of the veins, in cases of ordinary suppuration is sufficiently precise to enable us to lean with all our weight on this slender circumstance. The veins certainly absorb. In cases of medullary sarcoma, it is extremely common to find the veins loaded with medullary matter. It is probable, therefore, that in most instances of suppuration, and particularly of diffused suppuration, a rigid examination would find pus both in veins and absorbents. We do not say that such *is* the case, but we do say that it is very likely, and that our ignorance upon the subject should induce us to receive such

statements as these of Mr. Douglas with reserve. The positiveness he displays is exceedingly injurious to the interests of science.

There are many circumstances opposed to the reception of the opinion that phlebitis and the resorption of purulent matter must necessarily precede the visceral abscesses. Setting aside the testimony of those, who declare that they have not been able to discover any trace of inflammation of the veins, those visceral abscesses occur in cases where such inflammation can hardly be deemed possible, and where there has been no pus for resorption. We have seen cutaneous erysipelas give rise to deposites in the lungs. In many instances we have seen it followed by secondary inflammations of the pleura, pericardium, and peritoneum. These were instances merely of cutaneous erysipelas, where no suppuration whatever existed, and where phlebitis can scarcely have occurred. Intermittent fever is occasionally followed by secondary inflammations; and the same is the case in common typhus. In the latter, however, ulcerations of the mucous membrane of the bowels are frequent, and it may be urged that the small veins of the intestines may be inflamed. On the whole, we think there is great reason to doubt, if the visceral inflammations and abscesses are, of necessity, preceded by inflammation even of the small veins. Yet it is probable, that, in the majority of instances, they are so.

In the number of this Journal for April 1833, will be found some observations on this subject, which were elicited on an examination of the sentiments of M. Velpeau, in his work on Operative Surgery. As many of our present readers may not be in possession of that number, and as the observations which we made in it, tend, we think, to display the real state of the question, we will introduce a portion of them in the present place. We remarked then:—

"There are several opinions as to the causes of these depôts. One party supposes that they depend on the resorption of pus, with or without phlebitis—a second, that the resorption of pus is always connected with phlebitis—a third, that they are the result of simple idiopathic inflammations—a fourth, that they depend on some peculiar state of the nervous system. There may be other sects, but the four we have mentioned are the chief.

We need not argue the question of simple idiopathic inflammations. There are few who now entertain this opinion, and, consequently, it would be fighting with a shadow to combat it.

Is the state of the nervous system to be looked on as the cause? We were at first inclined to attribute great importance to the agency of the nervous system; we are now rather shaken in our belief. It must be confessed that it is difficult to reason satisfactorily on the agency of a system so complicated and so powerful, and it does appear to us extremely unphilosophical to get rid of that difficulty, by denying the influence of the nervous system altogether. It is not improbable that it does exercise an influence, a mysterious one indeed, in the production of the deposites. Thus we find that the patients most commonly affected with them, are persons who have lived and drunk freely, debauchees in whom the nervous system is extremely excitable, and who are subject to delirium tremens. When we think upon this fact, we cannot resist the suspicion that certain states of the nervous system are more favourable to the development of secondary inflammations than others. Beyond this, we know of no certain data for satisfactory conclusions.

If we are not content with the theory of nervous agency, we are necessarily driven to the humoral pathology. Is the blood then contaminated in these cases, and is pus absorbed or in any way carried into the current of the circulation? Let us look at facts.

Purulent depôts seldom if ever occur, unless there be a suppurating wound, or pus be locked up in some part of the body. The cases in which the secondary inflammations are most common are undoubtedly those of compound fractures, amputations, operations in which the knife passes deeply among parts, injuries of the head, and inflam-

mation of the veins. Wherever, after an injury or an operation, inflammation and formation of lymph or pus occur in the intermuscular cellular tissue, a part in which it must *necessarily* be confined, we may count pretty generally on secondary inflammation occurring somewhere. This fact has struck us most forcibly, and so far as our own observation extends, we can guarantee its accuracy. If, on the other hand, suppuration occurs where it is not of necessity locked up, for instance, in the subcutaneous cellular tissue from which incisions discharge it, the secondary inflammations are beyond comparison less common. This is a broad fact that carries with it extreme weight.

It may be said that in chronic abscesses, in what is termed the psoas abscess for example, pus is locked up for a length of time, without much tendency to secondary inflammations existing. The cases do not appear to us to be parallel, nor the analogy sufficiently exact to diminish the force of the previous fact. A psoas abscess is connected with a peculiar state of constitution, has altogether a different march, occasions very different symptoms, from those remarked in cases of deep cellular inflammation after a recent injury or operation. No two things can be more unlike in appearance, and in all essential circumstances, than a patient during the first week or two after the reception of a compound fracture, and one with chronic abscess. In the former the inflammation is a spreading one—in the latter the purulent collection is more or less bounded by a wall of lymph.

We repeat then that the cases in which we must peculiarly dread the supervention of secondary inflammations, are those in which the inflammation has occurred in parts, where pus, if secreted, must be necessarily confined. We need hardly say that such cases must be most adapted for the resorption of pus. But there is another circumstance that cannot fail to have weight. The cases in which we might imagine, à priori, that pus might pass with much facility into the circulation, are those of phlebitis. Now two facts present themselves to our notice:—first, that phlebitis is very commonly attended with the purulent depôts, and secondly, that the symptoms of phlebitis are so similar to those of the depôts, that, accidental circumstances of distinction not being present, we defy any surgeon to point out the difference. It will be observed that this does not involve the question of the existence of phlebitis in all cases of depôts. That is a totally separate consideration.

Facts, then, have carried us thus far; first, that depôts are most common where, after injuries and operations, matter is confined, and particularly where it is not lodged in any one cavity, but disseminated through the intermuscular cellular membrane; secondly, that phlebitis is very frequently accompanied or followed by the depôts; and, thirdly, that the leading symptoms occasioned by phlebitis and by the depôts are almost exactly similar.

We know not whether we have put the argument in a clear manner, or whether our readers see its force as we have seen the force of the facts it represents. Those facts have made us swerve from an inclination to believe in the efficient operation of the nervous system, to a more than suspicion that the true cause exists in the passage of pus, in one way or other, into the circulating system. The evidence is not perfect we allow, but it is of a cumulative character, and more satisfactory than that on the side of nervous agency.

We have said that the constant existence of phlebitis in cases of depôts requires other evidence for its support. The facts to which we have alluded do not prove it. We have seen many cases of secondary inflammation, in which a careful inspection detected no venous inflammation. This has been the case with other observers. M. Velpeau has examined, since this theory was broached, thirteen patients in whom he could discover no phlebitis whatever. Some of these dissections were made in the presence of those who adhered to the theory in question. It has been said that the smaller veins are affected, and that it is difficult to trace their im-

plication. But this is obviously assumption, and where facts fail we must stop. When the evidence of sense no longer serves us, one man has, cæteris paribus, as good a right to deny as another has to affirm.

With reference, therefore, to the coexistence of phlebitis and the purulent deposites, it seems to us that we may venture on the following conclusions, but that facts do not yet support us farther. First, that the symptoms of phlebitis and the purulent deposites are very similar, if not identical in kind. Secondly, that in a considerable number of cases, phlebitis and the purulent deposites are found, by examination after death, to co-exist. Thirdly, that in many cases a very careful inspection can detect no traces of phlebitis, while the purulent deposites are present.—Fourthly, that in many cases, phlebitis exists without the purulent deposites.

There is one circumstance that has always made a strong impression on our minds, and to which we cannot forbear adverting. It is this. If after an injury or an operation a patient has continued to have a very frequent pulse, that patient has almost always done ill, and has in many instances died of some secondary inflammation. A frequent pulse is, of course, merely an evidence of fever, and fever itself is usually a symptom, an assemblage of deranged functions from some local lesion or irritation. We do not mean to say that fever is never idiopathic, but we may safely say that in the cases we are treating of it seldom is so.

It appears then that if, after an injury or an operation, that description of fever which is characterized by a pulse always frequent, but more so at night, and a temperature of the surface always above par, be continued for any length of time, the patient is very liable to be attacked by some secondary inflammation. We are not solicitous about the explanation of facts, provided the facts themselves be true. Our own impression is, that if, after any local injury, fever from any cause be maintained, that very fever becomes itself the source of other affections. The blood is circulating and continues to circulate in all the organs with unusual rapidity, and it is not difficult to conceive that under such circumstances those organs should be more prone to inflammation. There are some analogies that bear upon this point. It is well known, for instance, that during the re-actions that follow any kind of collapse, visceral inflammations are not uncommon.—Thus a patient receives a severe burn, there is much collapse, stimulants are given to a great extent, considerable re-action succeeds, and fatal inflammation of the pleura or peritoneum supervenes. Mr. Earle mentions that many of the firemen burnt during the conflagration of Covent Garden Theatre, died from visceral inflammations. They were much stimulated. Now in these cases the secondary inflammations occur in some instances before suppuration has commenced in the injured parts, and consequently before absorption of pus can occur. But persons labouring under intermittent fevers are liable to serous or pneumonic inflammations. In intermittents there is no cognizable source of pus to be absorbed. A very common cause of death in patients who are said to have typhus, is inflammation of the lung. We have seen a patient die of secondary pleuritis, who had simply cutaneous erysipelas, and in whom there was no where suppuration. These facts, and we might mention many more, facts too of such a nature that any man of experience or of observation must recognize them as not uncommon, are calculated, we think, to prove that consecutive inflammations occur under conditions, and in diseases agreeing only in this, that there is fever.

We repeat that we are not solicitous about an explanation, nor do we feel anxious respecting the fate of our *opinions*. All that we covet is the power of observing facts correctly, and drawing from them the fair inductions they allow. Were we inclined to press our theory, or rather generalization, for it scarcely deserves to be termed a theory, we might instance the ulcerations of the bowels, the chronic pleurisies, the tubercles even occurring in protracted

febrile states of system, whether the pyrexia be occasioned by a suppurating burn, diseased bone, diseased joint, or in many other manners. We will, however, desist, contented with hinting our belief, that consecutive diseases, whether they be visceral inflammations rapidly fatal, or merely chronic, are apt to occur whenever pyrexia is present for any length of time, whatever the cause of that pyrexia may have been.

Such were our sentiments in 1833. In 1836, we see little reason to modify them. We have not only seen, but closely watched, very many cases of secondary inflammations. We are too well convinced of the liability to them which is conferred by collections of matter—we are well aware of the frequency of primary phlebitis, and of the probability of the resorption of pus—but we cannot agree with Mr. Douglas, in supposing that all is clear, decisive, and above-board, nor jump at the positive conclusion that he does. To doubt in such cases is the province of reason—to investigate is the consequence of doubt—and exactness and certainty are the results of investigation. Other occupations have latterly prevented us from pursuing a series of experiments and inquiries which we once commenced, and possibly never may resume. We recommend others to observe these cases closely, and, in particular, we would advise Mr. Douglas to apply the same diligence he has exhibited already, to the further elucidation of this interesting department of pathology. He is young and sanguine. We would not damp the generous enthusiasm of his youth; but we would have him pause ere he adopts or expresses uncompromising opinions. As we grow older, we all grow more cautious, if not more wise, and we learn to distrust, not only the conclusions and the facts of others, but the observations and convictions of ourselves.

The second point to which we must allude, is Mr. Douglas' statement, that the secondary abscesses originate in inflammation of the venous branches of the part, which is the seat of the secondary inflammation. Much credit is due to him for the observation of this fact. We have no doubt of its general truth. Several years ago, we observed the same thing in some cases of deposites in the lungs at St. George's. We remember tracing the pulmonary veins, and finding them inflamed and loaded with pus, in company with our friend Mr. Smith, the present lecturer on anatomy in the Hunterian Theatre of Great Windmill Street. But we looked on the circumstance as accidental, and did not pursue the examination in other cases.

But, whilst we admit the probable general correctness of the observation, we doubt if it is universally true.

It must not be forgotten, that the secondary consequences of injuries and of phlebitis are not merely abscesses in certain parts or organs, but also inflammation of the serous or synovial membranes. A patient, for example, may be affected, after a compound fracture, with collections of pus in the lungs, or the liver, or the subcutaneous cellular membrane—or he may have deposites in the lungs, and sero-purulent effusion into the peritoneum or the pericardium—or he may have solely serous inflammation—or he may have serous inflammation, with purulent collections in the larger joints. There is no end to the combinations of these secondary inflammations, and the circumstances all shew that they are analogous in character, follow the same causes, occur in the same states of constitution, and produce the same results. We cannot dissever them, and the etiology of the secondary inflammations must involve, not only the visceral abscesses, but the serous inflammations and the collections of pus in the joints.

In secondary abscess of the lung or liver, it is easy enough to suppose that the veins of the part are inflamed. But it is not so easy to account, in this manner for sero-purulent effusion into the pleura or the peritoneum, independently of visceral abscess, or to explain on this hypothesis the collections in the joints. Mr. Douglas has felt this difficulty severely, and has resorted to an expedient more ingenious than satisfactory. He asserts that, in the articular affection, sympathy is the cause of the inflam-

mation; an example so obviously tainted with theory, that it does not require elaborate discussion.

Again, then, we must pause, before we can subscribe to what is no other than a dogma on the part of Mr. Douglas—that the secondary abscesses result from consecutive phlebitis. This is sometimes the case, no doubt; but, in the instances of the joints and of the serous membranes, we possess no proof of its occurrence. And when Mr. Douglas soars to explain even the *mode* of the secondary inflammation, by declaring that the pus circulating in the blood becomes an irritant to the venous radicle—when he revives, in short, the doctrine of an error loci, he should be made aware how far he is departing from that precision of generalization and of reasoning, so necessary in all scientific investigations, and so especially required in this.

On endeavouring to sum up what Mr. Douglas has done, we think it must be owned that he has added fresh force to the sentiments of those who seek for an explanation of the secondary inflammations in the entrance of pus into the circulation. If we have disagreed with him on some points, it has been rather that we have doubted than actually denied his positions. We are sure that he has displayed both zeal and ability, and we augur well of those qualities applied so early to the investigation of a complex subject.

MISCELLANIES.

On the Prone Position in Affections of the Spine, Hips, &c. By Mr. Verral.

A paper on this subject was lately read at the Westminster Medical Society, from which we shall make an extract, as it records the case in which the apparatus (very simple) was first tried.

"A young gentleman, aged 16, had for two years been afflicted with diseased spine. The complaint had come upon him during a tour in Scotland, and on his return from thence, he made a stay of some months at Hinchley, that he might be under the care of Mr. Cheshire. As he was becoming worse, he at length proceeded to London, and his friends were advised by the medical gentlemen who were there consulted, to take him to the sea-side. Lodgings were taken at Seaford, where I then resided, and in November, 1825, he was accidentally placed under my care in consequence of his having been attacked with scarlet fever. He had previously been attended occasionally by a medical friend of the family, residing some distance off; but having been thus called upon, I was of course made acquainted with the disease under which he had so long been suffering. After his recovery from scarlet fever, I therefore frequently saw him, and so great a sufferer it has rarely been my lot to behold. He had long had an abscess discharging most profusely in the right groin. There was disease and a very large posterior curvature of the lumbar vertebræ, with which the abscess no doubt communicated. He was exceedingly emaciated, and the skin so readily gave way, that every part upon which he had pressed but for a few hours had become excoriated. He had a large sore on the edge of the sacrum, another on the point of the protruded vertebræ, and another on each hip. In bed, therefore, whether lying supine or on the sides, he suffered extreme torture, alleviated but for a very few hours by the administration of the most powerful opiates. From his bed, then, he was obliged to rise, and in doing that, he daily suffered an hour of agony, which although he bore pain with much fortitude, forced tears in torrents from his eyes. When up, he sat in a chair con-

trived by Mr. Cheshire, with high arms and with a strap supported by an arch of steel, that came forward over his head, so that the weight of the upper part of the body might be taken off from the diseased portion of the spine. But his elbows had been wrung by leaning on the arms of the chair, and his chin was completely excoriated by the frequent use of the strap. For ease, therefore, he had recourse to his crutches, upon which he sometimes stood for two or three hours at a time; but at last excoriation took place in each axilla, and thus every change of position afforded him but a change of torment. Having one day witnessed his sufferings, I went away, considering whether it might not be possible to place him in some other position, which would afford him sometimes an hour or two of respite from the terrible tortures which, in addition to the disease, were evidently hurrying him to the grave. I thought of the haymakers and harvesters, and the shepherds, whom I had often seen sleeping on their faces; and although Horace, I believe, tells us that 'Malus pastor dormit supinus,' I concluded that, as it is *Malus* pastor who so sleeps, I would even venture to send my young friend to sleep in the PRONE POSITION. By way of trial I threw myself at length on the sofa, but I found that a regular platform gave an uneasy stretching to the body, which I felt assured he would not be able to bear. After many trials, I found that a slight angle in the platform, corresponding with the bend of the hips, rendered the position extremely easy. Upon this hint I acted, and having also contrived an easy mode of laying the patient down upon the board, I had it one day taken to the house, and he was immediately placed upon it. In three minutes he was asleep, and continued so for three hours. When he awoke, seeing me sitting beside him, he exclaimed that he had to thank me for the sweetest sleep which he had enjoyed for many months. That night and the two or three following ones he was removed from the couch to his bed, but after that he resolved to try a night upon the couch, and succeeded so well that from that day, which was the 22d of December, until he died on the 28th of the following August, he never but once left it, excepting for the purpose of that daily change which the great discharge of the abscess rendered imperatively necessary. On this account it was that I was obliged to contrive such additions to the original platform as were required to make it a permanent instead of an occasional place of rest, and at the same time to enable him to be moved off and on with facility. This was effected, as I shall shew you, in so simple and yet in so effectual a manner, that, whether laying on the couch or in being raised so that he might be changed, and the parts cleansed and dressed, he never complained of the slightest degree of pain. He rested without an opiate, amused himself during the day in reading, writing, and drawing, all which he could accomplish without the slightest movement of the body; and, to add to our surprise, although in no other position was he able to lie, even for a few hours, without wringing, he lay in this manner for more than eight months, and had not even in any part the slightest reddening or excoriation. He recruited so much at first, in consequence of the ease and rest he was experiencing, that for a short time we had almost a hope of his ultimate recovery. Fresh abscesses, however, formed; openings took place in the other groin, and in the thighs, and a violent hæmorrhage at length coming on, he expired, as he had prayed to do, on his 'dear couch,' as he called it, without feeling a pang, and without uttering a groan. In this, and in one other case, we suffered some inconvenience from an œdematous swelling of the legs, but it never became of any serious importance. It was, however, the cause of his trying a change from the couch to his bed on one night, which was, as I stated, the only time that he attempted that change after he had made the couch a permanent resting place. This was done at the request of the medical friend I have alluded to, but the experiment caused him so much pain, and before I saw him, which was not till the next day at noon, had again

so much excoriated the angle of the distorted spine, that it was never again repeated. During the last week or two he had become so weak as scarcely to bear the upright position, in which he was placed for a few minutes to be washed and changed, and I was thinking, at the time of his death, of contriving to fix on the couch a corresponding board, which, being brought over his back, he might have been rolled over and back again without the slightest personal exertion. This, I think, might be easily effected, but I have never since had a case that has required it.

On this case I have few observations to make. By no mode of treatment do I believe it capable of being cured, at the period when it fell under my observation. But I also believe that no position in which the patient could have been placed, would have afforded him so good a chance of recovery; and if the disease had not already committed such dreadful ravages, if the bones had not become altogether carious, and if the constitution had not been worn down by long suffering, and profuse discharge, then do I almost believe that the perfect ease which the couch afforded him, the free exit that it gave to the pus, and the great freedom from motion which was so long allowed to the diseased parts, would have insured him an ultimate cure. From the observations which I made on the above case, I may with confidence assert, that in all cases of psoas abscess, in which the matter is pointing, or has made its way anteriorly, the prone position is the one in which the patient ought to be laid. Indeed, in the early stage of that disease, while it may be hoped that active remedial measures, such as leeches, issues, blisters, friction, &c. might be the means of preventing the formation of matter, it is clear that in no other position can the patient be so advantageously placed, as well on account of the perfect quiet that it affords, as of the extraordinary facility which it gives for the application of the various remedies. In the incipient stage of disease of the vertebral column, the prone position is still more imperatively demanded; and in that case, as well as in inflammation or injuries of the spinal marrow, or of its investing membranes, the long-continued and most perfect quietude in which the patient may remain, is assuredly a most important recommendation. Where there is no purulent discharge, to render a change of linen frequently necessary, there need be no limit to that state of quiet, but what the commonest cleanliness would impose, as the food is taken, the evacuations passed, and all the offices of life carried on without the slightest movement of the body."*

The apparatus is abundantly simple —being, in fact, only a board about three feet broad, with a hinge in the middle, or nearly in the middle, capable of being bent to any desired angle, and on which a thin mattrass is spread. There is an aperture for the feet, to give them some support when necessary, and the knees may be bent by placing a pillow under the ankles. We are quite unable to speak to the utility of this pronation-bed from personal experience. To many members of the Westminster Medical Society, it appeared to promise advantages, especially in ulcers and sloughings about the back and nates, as well as in injuries of the spine; but future observation alone can determine these points, inventors being generally found to be too partial to the creatures of their own creation.

There is, however, one potent drawback on Mr. Verral's proposal—namely, that it will be opposed by the whole of the ultra or tory aristocracy of the profession. They will, doubtless, consider this as one of those topsy-turvy projects for turning every thing upside down, and undermining the foundations of our VENERABLE INSTITUTIONS. The medical aristocracy have long *preached* the doctrine of *supination* to the inferior classes of their order; but they took good care never to *practise* it. Mr. Verral may rest assured that they will discourage every *movement* from the supine posture—even that of the inclined

* See Dr. Ryan's Journal for May 28th, 1836.

plane—as tending to that much dreaded *equality* which sounds so harshly in aristocratic ears.

BLEEDING IN THE COLD STAGE OF INTERMITTENTS.

(India Journal.)

We perceive that Dr. Mackintosh's plan is gaining ground in India, where an ample field is open for experiment.

"The novelty of this practice, and the dangerous consequences supposed to result from it, have deterred many from pursuing this mode of treatment. It is but natural that we should receive with distrust and adopt with caution, a doctrine, which seems so totally at variance with all our preconceived notions of the nature and treatment of this disease. The employment of V. S. is one of the newest lights, which has dawned on us, and is I believe a coruscation from the luminous and inventive imagination of Dr. Mackintosh of Edinburgh, assisted by an unwearied assiduity, and perseverance, in every object, connected with the profession; to this gentleman we are indebted, for a safe and most useful prophylactic, by the judicious administration of which, this most troublesome disease is not only speedily cured, but the chronic visceral derangements, so frequently the sequelæ of its invasion, are in a great measure, if not wholly, obviated.

The practice is I believe far from being universal, in this country, and I am aware that Medical men in general, are averse to it, particularly among the natives; I confess that at first I felt some difficulty in overcoming my own prejudices, and with a wholesome dread of fatal syncope, debility, natural want of stamina, I with a trembling hand, resolved to try its effects, on an emaciated *kidmutgar*, who was ill for six days previously. Having directed him to come to me when his cold fit was about to commence, I took from his arm six ozs. of blood, when he became faint, and continued in that state for nearly half an hour; giving him every now and then a little *ammonia*, he soon called and walked home, without the assistance of two friends who had accompanied him to my house. The fever was of the quotidian type, I gave *two* grains of quinine to take the following morning, he has never had since a return of the symptoms, and enjoys his usual health. My next patient was a prisoner in the jail, a stout robust fellow, attacked with fever of the tertian type, had one paroxysm, the hot fit extremely severe, violent headache, skin hot and dry, the intermission perfect—has had no medicine; ordered him to be bled, when the next cold fit had fully commenced—the result was as I anticipated, the paroxysm was instantly arrested, the hot and sweating stages scarcely observable, and no return of fever; ordering him some purgative medicine, he was discharged—four days subsequently, he got intoxicated, which brought on a return of his former symptoms; he was, by his own particular request, treated as before, and with the same agreeable result; the quantity of blood taken in the first instance amounted to 12 oz. in the second to 10 oz. A servant of my own was the next patient on whom I tried its effects, his fever was of the quotidian form; I bled him when the cold stage had fairly set in, after which he had no regular return of fever, except that for two days after, a slight disposition to recurrence of the symptoms manifested itself, which yielded readily to small doses of quinine: except a purgative, he took no other medicine, and has since continued well. It would be useless to enumerate the many examples I have had of the efficacy of this plan. The two last months have afforded me many opportunities of putting it to the test of experience, I can therefore with confidence recommend V. S. as an invaluable remedy in this disease.

There are, however, some cases where it may be injudicious and even dangerous to adopt it, where in old exsanguineous subjects great debility and a complication of other diseases co-exist, but these are, I apprehend, few. In a case which I had lately under my care, in which the propriety of V. S. appeared questionable, I witnessed the best effects from the topical application of leeches.

An old servant, labouring under chronic enlargement of the liver, and an

enormous spleen, has had tertian fever for the last sixteen months, for which quinine and various remedies have been taken in vain, applied to me lately; on examination I found that he suffered little from the diseased liver, but complained a good deal of the spleen, which became extremely painful during the fever, particularly in the cold stage: I directed the application of six leeches for three successive periods with a calomel purge; from this mode of treatment he derived the greatest benefit; pain and tenderness of the spleen much diminished, and a postponement or irregularity of the paroxysms, with a sensible decrease in severity—the subsequent exhibition of quinine, which before proved useless, now manifested its usual powers as a Febrifuge, and the poor man continues free from fever, his other complaints nearly in statu quo.

In this instance, it is, I think, clear that fever was kept up partly from the influence of habit, but in much greater degree, from the diseased spleen being unable with impunity to bear the increased influx of blood, which is directed in an especial manner, to this organ in intermittent fever.

I abstain from offering any observation as to the 'quo modo' of its action, this being a subject which requires, for its proper consideration, more time and talent than I can bestow; I should hope that some one more competent for the task would undertake it, content to add my humble efforts to that of others in recording the advantages to be derived, from the employment of a remedy at once simple and efficacious.

I cannot conclude without observing, that I feel myself indebted to Mr. Twining for having drawn my attention, and, I believe, that of the profession in this country, to this subject—a circumstance which, in itself, entitles the practice to favorable consideration, coming forth, stamped with the authority of one, whose zeal, in scientific pursuits, is always so conspicuous, and whose unbounded experience and sound judgment, so fully qualify him to form a correct estimate of its value.

T. C."

Dublin Medical Journal.

We have great pleasure in copying the following paragraph from the last number of our Dublin contemporary. We need hardly say that it is *satis superque*.

"*The Medico-Chirurgical Review.*—In the last number of the Medico-Chirurgical Review, we observe that its Editors have expressed their disapprobation of an article in our Journal for March, in which we alluded to those temptations incident to the conducting of a Medical Journal in a metropolis; and that they have supposed we were preferring a charge of venality against them.

We assure the Editors of the Medico-Chirurgical Review, that these observations were not intended to bear upon them. Even if the charge of venality were applicable, we, at least, have received no cause for preferring it. But we make no such accusation, and we regret that an observation of a general tendency should be so misconstrued, and made the grounds of personal allusion, always a useless as well as unpleasing mode of argument. Let us in conclusion express our sincere hope, that that harmony so essential to the progress of truth may be restored, and that both works having for their object the furtherance of science, will continue in the mutual good understanding which has heretofore existed between them."

Reporting from Medical Societies.

A sharp conflict lately took place in the Medical Society of Calcutta, respecting the propriety or impropriety of having correct and full reports (by a professed reporter) taken of the Society's proceedings, in order that they might be published in the India Journal of Medical Science. Mr. Corbyn, the Editor of the journal argued for the necessity of an authentic report. Mr. Hutchinson, the secretary, spoke against it—on the ground that it would injure the sale of the Society's Transactions. It appears to us that neither side took a just view of the case. Mr. Corbyn

ought not to have insisted on full reports, not only of the discussions, but of the papers read in the Society—for undoubtedly such procedure would destroy the sale of the Society's Transactions. On the other hand, the Society has no property in the VIVA VOCE discussions. Such discussions are not published in the Transactions, and are lost to all except the few members actually present. The discussions, therefore, ought, on every principle of liberality and utility, to be published for the benefit of the whole profession. Authentic and unprejudiced reports, too, are of great advantage—as garbled and partial ones are prejudicial. Even with all the inconvenience of incompetent reporters—sometimes imbued with party spirit or personal hostility—the system of reporting has been beneficial to the public: Mr. Bramley, one of the disputants, observes—

"He had but to look to some of the leading medical societies in England, where the system of reporting was permitted, or even encouraged, to satisfy him that, by the introduction of a similar system here, they might get on a great deal better. He believed that the Westminster Medical Society owed its present high reputation to the reporting system."

On going to ballot, however, the proposition of Mr. Corbyn was lost by a majority of ONE! We hope that, ere long, the majority will be on the liberal side, and that the *discussions*, which are no man's property, and which may be useful to all, will be reported by a regular and impartial hand. This, indeed, is a desideratum in all societies, where the most ludicrous mistakes and important errors are at every meeting reported, from inability to take notes in short-hand.

SIR WILLIAM BLIZZARD.

A MEMOIR of this venerable member of our profession has been published by Mr. Cooke, having been first read before the HUNTERIAN SOCIETY. If the intellectual powers of our departed brother had been equal to his physical stamina and tenacity of life, NINETY-FOUR YEARS of existence—with all the advantages of being a public character, and with a large hospital for the theatre of his exertions, would have furnished a far worse biographer than Mr. Cooke, with ample materials for a different kind of volume to that which lies before us—containing 67 pages!—The man who could amputate, with steady hand, at the age of 84, must have been endowed, naturally, with a firm nervous system. His retentive memory was still more remarkable than the imperturbability of his nerves. At the age of 93, he was able, without any preparation, and without having read the poem for forty or fifty years before, to repeat the whole of "Gray's Elegy in a Church-yard," almost without hesitation! If, therefore, the powers of perception, reflection, and discrimination, had borne any kind of proportion to the power of memory, the deceased might, even with very moderate application, have left behind him, for the benefit of posterity, a mass of practical facts of incalculable value to his brethren, and which would have transmitted his name to remote ages, as a benefactor to the human race! But what do we find, as the result of this Herculean *physique*, and unparalleled tenacity of impressions on the sensorium? Nothing—or next to nothing!! Three or four insulated communications (of little value) to periodical journals or transactions! This could not be attributed to indolence, for few were more active than the deceased. It must, therefore, be placed to the account, either of defective talent, or deficient zeal for the promotion of that science in which he was embarked for the greater part of a century. His biographer affirms that he was *most zealous*. The other alternative is, that he was a man of very moderate talent. We firmly believe that this was the case.

The great object of biography is, or ought to be—BENEFIT TO THE SURVIVORS. We would ask Mr. Cooke,

in a line from that beautiful Elegy which the deceased retained so strongly in his memory—

> "Can friendship soothe the dull cold ear of [death!"

Certainly not. We ought, therefore, to stimulate the living to avoid the defects of the dead, as well as to emulate his virtues. Admitting, as we do, that the deceased was a man of no bright or intellectual capacity; yet, the length of his life, and the retention of his memory, gave him ample means of accumulating FACTS, which his public and private practice furnished him with in abundance, and which it was his duty to record, as a compensation for the benefits which he enjoyed. The medical man, of extensive experience, who dies without recording the more important points of that experience, for the good of his successors, is not a whit less reprehensible than the father who lives up to the whole of his income, and leaves a family without provision! In short, he is a *post obit* bankrupt in science, who draws all he can from others, during life, but leaves nothing for his successors to help them on their way through the difficulties and labyrinths of their profession!

In these reflections, we merely take the example before us as a text, and not with any personal motive for recrimination. We never once came in contact with the deceased, or ever had communication with him, direct or indirect. But the biography under our notice has impressed us with the conviction that *negative merits* little deserve the eulogy of friends, though they may disarm the censure of enemies. We thank Mr. Cooke, however, for the biography of a surgeon, who attained the age of 94 years, without materially improving medical science, though educated under a HUNTER and a POTT, and the preceptor of an Abernethy.

In medical politics, Sir William was a BURDETT, in the beginning—and, alas! a BURDETT at the end! A *liberal* when his faculties were opening, and at their prime—stationary, if not retrograde, in his principles, when age had chilled the generous impulses of youth, and the EBB OF LIFE communicated its Lethean retrocession to the feeble and backward current of intellect! Yes! A Blizzard and a Burdett hold out a lesson to frail HUMANITY—mortifying indeed, but pregnant with instruction. It teaches us that those, who find themselves incapable of marching in the steps of improvement, wherein they trode in youth and manhood, should leave the path entirely, and not retard the progress of others. The majestic oak, that embellishes the avenue leading to the stately edifice, may fall in the wrong direction, when old and decayed, and thus obstruct the road which it formerly adorned and protected.

So much for the public life—which is public property—of the deceased. In private life, and in the domestic circles, we have always understood that Sir William bore a most amiable character, religious, moral, and humane.

Long as was his course on this sublunary stage, it seems to have been chequered with few or no incidents worth recording. He may be said to have lived and died within the sound of Bow-bells! Once indeed, and at the age of 84, he quitted modern Babylon, and penetrated as far as modern Athens. The contrast between that romantic city and the environs of Whitechapel and the Minories, must have astonished the old gentleman, if his sight enabled him to compare the localities! "The journey was completed in four days; and he commenced travelling every morning at 5 o'clock. *The only objects of attraction on the road were the hospitals of the principal towns through which he passed.*"

"The only severe indisposition he ever experienced before his last illness, (except during a single night rendered memorable by a circumstance which will be mentioned in the sequel,) occurred after a long and tedious dissection of a fine muscular subject, *in which he undertook to measure every muscle in the body.* He worked almost incessantly till its completion, frequently continuing over the subject both night and day. These exertions were followed by an attack of typhus, which very nearly brought him to the grave."

We should think that such a task

was about as useful as to count every muscular fibre in the multifidus spinæ.

There is no mention made of Sir William's having ever entered into the holy state of matrimony, or of having left any family. We wonder at this. In an Appendix, some specimens of his early *political* writings, under the signature "CURTIUS," are given. They would now be characterized as not merely radical, but *revolutionary*. Sir William was no advocate for the divine rights of kings. He distinctly states—"*Reges ex nobis—non nos a Regibus.*" This means, if it mean any thing, that kings should spring from the people! Such a sentiment, however, emanated from the deceased, some 60 years since. Suppose a deputation from the *members* of the College of Surgeons had advanced to the Hall, where Sir William sat as president of the Council, 60 years after the above enunciation, with a banner, on which was inscribed—

"CONSILIUM EX NOBIS—NON NOS EX CONSILIO."

What would the sturdy KNIGHT have done? We imagine that the ponderous mace would have quickly come in contact with the standard-bearer's head, and that Sir William would have exclaimed, with stentorian voice, caitif members!

Consilium pro vobis!!

No, no.

Vos non vobis—aratra fertis BOVES!

Sir William, at the period in question, was a RADICAL REFORMER. He railed against taxes that were levied on the people to support a luxurious court, and a dominant oligarchy! One of his remedies for these and other evils, will sound rather curious in modern ears.

"An exertion of the king's prerogative, in the dissolution of Parliament, would be the means of removing *all the grievances* of Englishmen at this day."

Well! Sir William lived to see such a prerogative exerted; but the consequences were not quite what the worthy Knight expected!

Nevertheless we will do our venerable departed brother the justice to say that, although in his riper years he endeavoured to put a drag on the wheels of reform, yet he advocated many good and useful principles. Among these was, the diffusion of general instruction among the people at large. For this single advocacy we would forgive him all his sins, whether of omission or commission. But he did many other good things. He contributed mainly to the support and better regulation of the LONDON HOSPITAL, which was his favorite hobby, and the scene of his most useful labours. His excentricities were considerable, as all his contemporaries well know. He was not only a politician, but a POET, on a small scale. Most of his effusions, in this line, remain, we believe, in manuscript. His biographer has adduced a few specimens. From the last which he wrote, in March 1835, four or five months after having a cataract extracted by Mr. Lawrence, we shall extract a passage.

"HUSH! blessed Impress! sight suddenly restored!
Prostrate, I breathe thanksgiving, gracious Lord!
The face of nature, sun-gilt world, to see,
Revives each fibre's sense of function free.
But I will not the loss of sight deplore;
Its restoration animates the more.
The series of impressions on the sight,
And, in the scale of wonder and delight,
Are forms which have an organized frame,
Or vegetate, or have a sentient claim.
The human features, with mysterious sway,
Benevolence, and bravery, portray.
Yet, oft would sorrow mingle with a smile,
And sympathy, as oft, its pangs beguile.
Should *Herschel* farther move sight's marv'lous sphere,
Bigots may bode a solemn era near.
The mighty universe is the same still:—
Learn, and obey, th' adored Maker's Will!"

Considering that these lines were written in the 94th year of his age, and only a few months before death, they are by no means despicable—and, at all events, ought not to be subjected to criticism. He departed this life on the 28th of August, 1835, having attended the Court of Examiners in Lincoln's-Inn-Fields, only one week before his decease!

The estimate which we have formed of the character of our patriarchal brother, now gathered to his forefathers, is this:—his physical organization evinced a singular tenacity of life. His intellectual powers were below par, *on the whole*; though some of them, for example MEMORY, were remarkably strong.

Does this inequality prove the truth of Pope's celebrated sentiment?

"Thus in the soul where MEMORY prevails,
The solid power of UNDERSTANDING fails—
Where beams of bright *imagination* play,
The *memory's* soft figures melt away."

Be this as it may, if his intellectual powers were comparatively weak, his sense of morality, justice, and integrity were strong. Of a man's religious sentiments, it is for his Creator, and not the creature to judge. Outward professions *ought* to go for little in this world, where hypocrisy too often usurps the garb of sanctity. We can only estimate a man by his actions, and not by his thoughts. We have no reason to suspect the deceased of insincerity; and therefore we hope and *believe* that he is gone to that tribunal (before which we must all appear) with a conscience void of guilt, to receive the reward of a long, useful, and honorable life!

MESENTERIC DISEASE—PERITONEAL ACCRETION. By W. A. GREEN.

(India Journal of Medical Science.)

The two following cases are somewhat similar in the train of symptoms and in the results of examination after death. The symptoms common to both were an almost daily accession of fever, or at any rate of increase of pulse, sometimes ushered in with violent shivering; the absence of pain on pressing the abdomen; extreme debility; and gradual wasting of the flesh. I did not anticipate finding Mesenteric disease, after death. In the first case Dysentery was supposed to be the influential disease, but the bowels did not exhibit signs of violent disease after death. In the second case the affection of the heart was not the main disease, but part and parcel of a most formidable mass of morbid structure, and yet in either case how few the diagnostic signs!

1st Case. K.B. a prisoner, aged 30, was admitted into Hospital, July 23, 1833, with dysentery which lasted more or less until December. During this period he recovered from the dysentery, and it relapsed several times, a little slimy matter was almost always to be seen in his evacuations. In December he became much more feeble, anasarcous swellings appeared generally over the body, the pulse in the morning was very feeble, fever came on in the afternoon with slight shivering and went off at night with gentle perspiration, the tongue moist and pallid, the evacuations of a pale colour. Bark was given in the absence of the fever, combined with chalk mixture when slime appeared in the stools; castor oil occasionally; antimony during the attacks of fever, and a mild diuretic.

January. During this month the fever diminished, but there was increase of pulse daily in the afternoon, lasting for several hours. *January 25th.* Fever returned ushered in with severe shivering and closing with perspiration—no slime in stools.

February. The debility now became extreme; carbonate of ammonia and wine were added to the bark given, the dysenteric affection came on again and was relieved, and during the latter half of the month he remained free from fever or increase of pulse in the afternoon, his evacuations feculent.

March. For the first half of the month he remained much the same—on the 19th he again passed slimy stools and the pulse quickened towards evening. The debility increased, he gradually sunk, and died on the 25th. The mouth had been affected for the relief of the dysentery; and blue pill, calomel, and colocynth had been occasionally given, to improve the secretions, in the course of the disease.

Post Mortem examination.—Head. About an ounce of fluid in the bag of the arachnoid—the vessels on the surface of the brain rather vascular.

Chest. The lungs were studded with recent tubercles—in the left bag of the Pleura one pint of fluid, in the right four ounces. The heart smaller than usual by one third.

Abdomen. The whole surface of the Peritoneum lining the abomen, and the mesentery, studded with minute seed-like depositions of lymph. The exter-

nal surface of the liver covered with the same—the bloodvessels of the mesentery distended with blood and of a purple colour. The glands of the mesentery very much enlarged, some as large as unbroken almonds, upon dividing them the substance of the glands was found vascular, and in their centre a quantity of pus—the fatty appendages of the large intestines thickened and increased in size, and containing pus within their structure. There were several smooth apparently healed ulcers, and one fresh ulcer, on the mucous membrane of the large intestines.

2d Case. G. S. prisoner, aged 35, was admitted into Hospital, April 27, 1834. He was feeble, with a small quick pulse, rather hot, dry skin, and furred tongue, bowels in good order, a dull heavy expression of countenance, and sallow complexion, he had no cough, no uneasiness on pressing the abdomen. The symptoms remained thus. *May 22d.* Upon applying the ear over the heart greatly increased sound was heard beneath the sternum, and on the right side of the organ extending to beneath the right clavicle, and over the back. I considered that the disease was, enlarged right side of the heart. From about this time he had a daily attack of fever, coming on with slight shivering, sometimes in the morning, or in the afternoon, or at night and subsiding after a few hours with perspiration, during the intervals of the fever he expressed himself to be easy, his pulse which was at first small, quick and regular, latterly became feeble, he could lie in any position without distress, breathing easily, no pain in chest nor in abdomen, the respiration was heard distinctly by the ear applied to the chest, the evacuations healthy; the tongue, at first moist with a central white fur, latterly became red and dry, the skin dry. The symptoms continued, with scarcely a change, to the day of his death, there was the daily attack of fever; increasing debility, and gradual wasting of the body, with anasarcous swellings of the legs towards the close of the scene. On the 10th of July the surface became chilled, he lay during the day in an unconscious state, and died that evening. The morbidly increased sound of the heart continued violent to the last, the bowels were a little disordered for a day or two previous to death. He was treated at first with tartar emetic, salines and purgatives; subsequently for the supposed disease of heart, leeches were applied to the chest, bark and camphor, and ammonia and T: Valerian. Am. were given, and T. Digitalis and Vin. Antim. during the fever; latterly 5 grs. of Plummer's Pills every night.

Post Mortem examination, ten hours after death.—Head. Minute ramifications of vessels on the surface of the brain highly injected, about 2 oz. of fluid altogether within the arachnoid and ventricles. The veins of the choroid plexus congested—the brain at its base, particularly that part beneath the lateral ventricles, very soft. The brain generally somewhat softened.

Chest. On left side partial adhesion between the two Pleuræ, 3 or 4 oz. of fluid on this side, the lungs of both sides here and there tuberculated, the apex of the right lung somewhat consolidated—both lungs posteriorly gorged with blood, of a dark purple colour, and emitting frothy mucus when cut. The Bronchiæ and trachea filled with frothy mucus. In Pericardium 1½ oz. of fluid. Heart very small, right ventricle of half the common size, and two or three lines only thick. The pulmonary gland being under the aorta, right pulmonary artery, and ascending vena cava united into a mass, firm and cheese-like when cut.

Abdomen. The walls of the abdomen, and omentum, intestines, liver and spleen agglutinated together. The whole surface of the peritoneum, throughout the several viscera, the mesentery, &c. covered with small granules of lymph giving it a nutmeg-grater appearance, its surface of a deep red colour, purple congested veins ramifying over it, these granules between the layers of the mesentery and those lying on the loins enormously enlarged forming a large mass filled with dark-coloured and white creamy matter. The veins of the mesentery and those encircling the in-

testines, purple and congested. There were several large bladders (hydatids I suppose) with thin transparent walls and containing a yellowish fluid lying amongst, and attached to, the agglutinated intestines and viscera, these could be separated from their attachments and taken out entire. Liver covered externally with a layer of lymph which was left attached to it after tearing off the peritoneum, its surface in places of a dark colour and softened in texture, the gall bladder empty, its walls thickened, the cystic duct diminished in calibre, the glands about the hepatic duct enlarged. Spleen studded externally and internally with tubercles of lymph.

Intestines. An ulcer at the termination of mucous membrane of Ileum, and another large one at the commencement of the Cœcum, the mucous surface of descending colon in patches red and uneven, a few minute ulcers scattered here and there.

MR. WALLACE'S CASES OF WANT OF SAGITTAL SUTURE IN A CERTAIN TRIBE OF NEGROES.

27, *Surrey Street, Strand,*

7th June, 1836.

Gentlemen,

The following little piece of intelligence you may perhaps think worthy of being presented to your readers.

In December, 1833, His Majesty's Sloop Trinculo, to which I was then attached, while cruizing in the Bight of Biaffra, on the West-coast of Africa, captured two small schooners carrying (both) about 100 slaves, consisting of men, women, and children, the whole of whom we landed immediately after at the island of Fernando Po. The Trinculo did not return to Fernando Po until October 1835, at which time we naturally made inquiry after our old friends the liberated Africans, all of whom, with the exception of those who had died, we found domiciled on the island, having the character of being idle, disobedient, unkind to each other —in short, possessing a host of bad qualities, with scarcely a single good one to redeem them. But the remarkable circumstance to which I wish to call your attention is, that, of those who had died, four had been examined on account of supposed disease in the head, and in all the sagittal suture was wanting. At the first examination the circumstance did not excite any very great degree of surprise, as it was merely supposed to be a *single* deviation from the ordinary process of nature, but when a second, a third, and even a fourth, evinced the same thing, then it not only excited much attention, but produced the very natural conclusion, that in this race of blacks such is the usual cranial conformation. If such is really the case, to say the least of it, it is exceedingly remarkable; and for what purpose Nature should so perform her work is a question which, although interesting, it may not be very easy to determine.

These blacks were principally from that part of the West-coast of Africa lying between the rivers Gatson and Congo, and it has long been noticed that the slaves taken from that quarter are neither so powerfully made, nor in possession of the same degree of intelligence, as the tribes to the northward and westward; but, upon the whole, there is a fair development of skull, and, so far as I have noticed, the mechanism of the head, with the exception alluded to, is perfect.

From Mr. Ballard, surgeon of the establishment at Fernando Po, (the gentleman who kindly furnished me with the information now given,) I received one of the skulls above-mentioned, which, since my arrival in England, I have deposited in the museum at Haslar.

I am, Gentlemen,

Very respectfully your's,

JAMES WALLACE,

Surg. R.N.

EASTERN PROVINCIAL MEDICAL ASSOCIATION.

The first annual meeting of this very laudable institution was held lately at Ipswich, where upwards of sixty physicians and surgeons of the neighbouring cities and towns were assembled. Dr. Band, of Ipswich, was called to the chair, and delivered an appropriate address on the occasion. Mr. Crosse, of Norwich, the honorary secretary, read a report. One hundred and sixty subscriptions have been already received—and the number of members exceeds 170. A junction is proposed with the parent association, in order that the Transactions may be published jointly. That thorny subject—the medical management of the poor—was rather warmly discussed, and elicited contrasting sentiments from several of the speakers, viz. Mr. Macintyre, Dr. Cox, Mr. Bree, and Mr. Crosse. Upwards of 50 of the members dined together afterwards, and many appropriate speeches added zest to the wine. We wish the Association every success.

DEATH OF BARRY O'MEARA, ESQ.

This gentleman, so well known as the favourite surgeon of Napoleon, departed this life on the 10th of June, after an illness of ten days, and in the 53d year of his age. He attended a public meeting at the Crown and Anchor the day before his illness commenced, and was then in exuberant health. The next morning he had a rigor, succeeded by violent fever. Having been subject to attacks of pulmonic inflammation, he concluded that this was one of them, and got himself copiously bled. This was an unfortunate mistake. Next morning erysipelas appeared on the face, with a pulse at 140. He sent for Mr. Elmore, his friend, who found him in this state. Dr. Johnson was afterwards called in, and hopes were entertained that life would be preserved. But delirium set in early and continued till the last. The powers of life ebbed—pulse got daily weaker—and although wine was exhibited, the patient sunk on the tenth day of the disease.

The deceased was a very free liver, both as respected food and drink. He was growing corpulent, and experienced paroxysms of gout once or twice a year. He was, therefore, the very worst subject for erysipelas. He never recovered the effects of the copious depletion.

Mr. O'Meara entered the army when very young—we believe when 18 or 19 years of age, and was in Egypt at the battle of Aboukir, when Sir R. Abercromby received his fatal wound. He afterwards served in the Navy, and went with Napoleon to St. Helena.—His life then became public history, and his "Voice from St. Helena" excited universal attention. It also, we believe, procured him a wife—a lady of title and fortune, (the late Lady Leigh,) who settled a thousand a year on her husband. She was advanced in life, and died a few years after their marriage, of hypertrophy of the heart, being attended by Dr. Johnson and others.

After this event, Mr. O'Meara spent his time in the enjoyment of the Society of choice spirits. He had a very large circle of acquaintance in the various clubs of the West End, and being rather an epicure, he wound up the frame of his constitution much too tight—and the consequence was that it gave way at the first onset of a formidable disease.

He was a gentleman of open heart and generous disposition. His political sentiments were strong, and though an enthusiastic admirer of the greatest tyrant of modern times—NAPOLEON—yet he went to the extreme of liberality and reform, of late years. He was the intimate friend of Daniel O'Connel—and in that gentleman's cause, he received the poison which carried him to his grave. At the subscription meeting, in the CROWN and ANCHOR Tavern, Mr. O'Meara stood opposite to an open window, through which a current of cold easterly wind was constantly entering. The room itself was crowded and hot. Here he got the chill, which issued in erysipelas and death! He died at about the same age as his great master and patron, BONAPARTE.

BIBLIOGRAPHICAL RECORD;

OR,

Works received for Review since last Quarter.

1. A Treatise on the Chemical, Medicinal, and Physiological Properties of Creosote, illustrated by Experiments on the Lower Animals, &c. being the Harveian Prize-Dissertation for 1836. By JOHN ROSE CORMACK, Member of the Royal Medical and Physical Societies of Edinburgh. 1836.

2. Guy's Hospital Reports. No. 2, April, 1836. Edited by GEORGE H. BARLOW, M.A. and JAMES P. BABINGTON, M.A. Price Four Shillings. Highley, 1836.

3. Quackery: its Danger, Irrationality, and Injustice; the Causes of its Success, the best Means for its Suppression. Addressed to all Classes. Bath, April, 1836, price Sixpence.

4. Outlines of Human Pathology. By HERBERT MAYO, F.R.S. &c. Part II. 1836.

5. Factory Statistics. The Official Tables appended to the Report of the Select Committee on the Ten-Hour Factory Bill, &c. By the late T. M. SADLER, Esq. Octavo, pp. 80. London, 1836.

6. A Letter to Lord John Russell, on the Condition of the Pauper Children of St. James's, Westminster. By T. J. PETTIGREW, F.R.S. Octavo, pp. 43. April, 1836.

7. The Dublin Journal of Medical Science, &c. May, 1836. *In Exchange.*

8. Medical Commentaries on Puerperal Fever, Vermination, and Water in the Head. By JOHN ALEXANDER, M.D. Octavo, pp. 69. 1835.

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10. Lectures on Subjects connected with Clinical Medicine. By P. M. LATHAM, M.D. Physician to St. Bartholomew's Hospital. Octavo, pp. 322. Longman and Co. April, 1836.

11. The Physiology of Digestion, considered with regard to the Principles of Dietetics. By ANDREW COMBE, M.D. Octavo, pp. 332. Maclachlan and Co. April, 1836.

☞ *This may be considered as a continuation of the author's very popular work, "the Principles of Physiology, applied to the Preservation of Health," and is executed with the same talent and learning displayed in that publication.*

12. An Introductory Address, delivered at Apothecaries' Hall, to the Members of that Society, 1835. By HENRY FIELD. Ocavo, sewed. 1836.

☞ *A very appropriate and well-written address.*

13. The Cyclopædia of Anatomy and Physiology. Edited by ROBERT B. TODD, M.D. Part VI., containing "*Cavity,*" by Dr. Todd—"*Cellular Tissue,*" by R. D. Grainger, Esq.—"*Cephalopoda,*" by R. Owen, Esq.—"*Cerumen,*" by W. T. Brande, Esq.—"*Cetacea,*" by Mons. F. Cuvier—"*Cheiroptera,*" by T. Bell, Esq.—"*Chyliferous System,*" by Dr. Grant—"*Cicatrix,*" by A. T. S. Dodd, Esq.—"*Celia,*" by Dr. Sherpy.

☞ *This is a highly respectable part of an excellent and praiseworthy undertaking.*

14. The Clinique Médicale; or Report of Medical Cases. By G. ANDRAL. Considered and translated, with Observations extracted from the Writings of the most distinguished Medical Authors, by D. SPILLAN, M.D. &c. Part IV. containing Diseases of the Abdomen. Renshaw, Strand, May, 1836. Price Five Shillings.

☞ *This is a very valuable and interesting part of a highly important Work.*

15. Pathological Observations on the Diseases of the Placenta. Part I. Congestion and Inflammation. By JAMES Y. SIMPSON, M.D. Read before the Royal Medical Society of Edinburgh. Nov. 20th, 1835.

☞ *This valuable paper is published in a recent Number of the Edinburgh Medical and Surgical Journal, and is highly deserving of the attention of pathologists in general, and accoucheurs in particular.*

16. St. Thomas's Hospital Reports. By JOHN F. SOUTH. No. 3. April, 1836.

17. A Practical Essay on the History and Treatment of Beriberi. By Assistant-Surgeon JOHN GRANT MALCOLMSON, of the Madras Establishment. Octavo, pp. 399. Madras, 1835.

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21. *Library of the Medical Sciences.*—The American Cyclopædia of Practical Medicine and Surgery; a Digest of Medical Literature. Edited by ISAAC HAYS, M.D. Parts 8 and 9. Philadelphia, 1835.

☞ *This important Work has only yet reached the article "ARTERIES." It bids fair to diffuse medical science through the United States, to an extent hitherto unexampled.*

22. On the Antidotal Treatment of Cholera; with a Sketch of the Physiology of the Disease, as deduced from that of intermittent Fever. By J. PARKIN, M.R.C.S. &c. Octavo, pp. 112. Highley, 1836.

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26. On Phlebitis, particularly as connected with Secondary Abscesses:—An Essay submitted to the Faculty of Physicians and Surgeons of Glasgow, when Candidate for Admission into that Body. By JAMES DOUGLAS, A.M. &c. late House Surgeon to the Glasgow Royal Infirmary. Octavo, pp. 48. 1835.

☞ *We shall introduce some interesting cases from this able thesis in our next Periscope.*

27. Address of Earl Stanhope, President of the Medico-Botanical Society, for the Anniversary Meeting, January 16th, 1836.

☞ *This Address, like the noble President himself, is distinguished by suavity, elegance, learning, and science—rare combinations, and reflecting no small lustre on the* ORDER *of aristocracy to which the President of this rising Society belongs!*

28. Révue Medico-Chirurgicale Anglaise, et des Sciences Accessoires, &c. Par BUREAUD RIOFREY, M.D. No. I. May 15th, 1836, pp. 48. This new namesake of our's is designed to give our Continental Brethren a fuller account of English theory and practice, than has hitherto been given through the medium of the Continental Journals, in which our medical literature is very little noticed.

29. A popular View of Homœopathy, exhibiting the present State of the Science, &c. By the Rev. THOMAS R. EVEREST, Rector of Wickwar. *Second Edit.* 1836.

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Closed on the 17th June.

EXTRA-LIMITES.

NOTES

OF

AN EPIDEMIC YELLOW FEVER,

WHICH OCCURRED

AT ANTIGUA IN THE LATTER PART OF 1835.

By JOHN FURLONG, M. D., M. R. C. S.

ASSISTANT SURGEON-GENERAL OF ANTIGUA.

Antigua has had an exemption from yellow fever 19 years; at least as far as I can ascertain, no case of fever, with decided black vomit, has been observed by civil practitioners since 1816 till within the last three months, when an alarm of its appearance was sounded, and its inhabitants thrown into dismay, their long immunity having almost lulled them into believing, that this scourge of the Tropics had for ever left their shores.

The epidemic with which Antigua has been visited was severe, though brief. It is my intention to give a succinct sketch of the fever—its probable cause, symptoms, treatment, &c. The island, prior to August, was unusually dry and hot; on the 12th of that month, it witnessed one of the severest hurricanes in the memory of the oldest inhabitants, accompanied with much rain, succeeded by extremely hot and dry weather—so much so, that it was generally remarked that part of September, and all October, were the driest months observed for many years. The violence of the storm occasioned an almost complete stripping of the leaves of the trees, giving them the seared and naked appearance of Autumn; thus causing a great deposition of vegetable matter, and no doubt mixed with myriads of animalculæ destroyed in the gale, both well saturated with the rains which fell with and succeeded the atmospheric conflict. This state was followed up for some weeks by great heat and drought. Such being the fact, no one can be surprised at the generation of malaria, and that in a highly concentrated state, and from such, unquestionably, the epidemic took its origin. The disease was almost exclusively confined to St. John's and English Harbour, and the cases which occurred in other parts of the island could always be traced to the sick having visited one or the other. Perhaps there is no tropical town more favourably situated for the production of malaria than

St. John's; it is surrounded on three parts by gently rising hills, and, consequently, is a receptacle for the debris, and all kinds of malaria-engendering matter, from the surrounding acclivities. The fever broke out in the very part of the town one, à priori, would have imagined—at the bottom called the Point, where the washing from the upper parts of St. John's are accumulated; and that locality is, at most favourable times, justly considered a hot-bed of malaria. The fever lasted from September till the latter part of November, a few sporadic cases occurring subsequently, and mostly in the country. The disappearance of the fever was as sudden as its invasion was unexpected, and its absence is no doubt to be ascribed to some genial showers which fell about that time, and have since continued. The fever was ushered in with shiverings, or a sense of cold creeping down the back, —shuddering or horripilation—pain of back, neck, and hips—irritability of stomach—headach, in some cases, very severe, in others, amounting only to a sense of tension of eyeballs and forehead, with a difficulty of elevating the eyes—tongue dry and furred—pulse, for first 24 hours, full and quick (I confess I never felt it strong or hard), and in bad cases, after 24 or 30 hours, symptoms became decidedly *typhoid*, with prostration of strength, collapsed features, listless eye, low delirium, floccitatio, pulse soft, and seldom above 80, passive hæmorrhages from gums, yellow skin, ecchymosis, black vomit, &c. and in one case, blood exuded from the pores of the skin at the side of the nose. I had only the opportunity of witnessing three post-mortem examinations: in these, the gastro-intestinal mucous membrane was in a state of great congestion—not arising from inflammation, but from passive congestion, occasioned, in my opinion, by an increased *tenuity* of the blood, whereby it gained admittance into vessels which, in its normal state, do not carry it. That this condition was not inflammatory, I judged from the symptoms in the living, and the appearance in the dead. In a plethoric young Scotch gentleman, who had passive hæmorrhage from the gums, and who recovered, I pressed the abdomen in every possible way, without giving any uneasiness, and he felt none. I have no doubt that his gastro-intestinal mucous coat was in the state above-mentioned, or approaching thereto. The rest of the viscera did not betray much deviation from health; in one of the cases, the liver seemed paler than usual, and the stomach contained a pint of thin blood, and some was extravasated among the fibres of the left pectoral muscle. During the epidemic, there was a great hæmorrhagic tendency; most females, when attacked, had a flow of blood from the uterus, and in the case of a young lady whom I attended, to such an extent, that I was obliged to prescribe acetate of lead, and order cold lotions to the pudenda, &c. and I have no doubt her death was expedited by the loss of blood. Another young lady who had been obstructed for nearly four months, occasioned by a wetting, was attacked with fever, and on the third day of her indisposition, was seized with menorrhagia. She had been under a course of aloetic pills and the semicupium without benefit. The blood from the gums had the appearance of treacle and water; the crasis of the blood seemed diminished, and its fluidity evidently increased; could it have been possible to transport one of the cases, after 36 hours, to a hospital in England (as some of my medical friends agreed with me), an English physician would have called it the malignant fever of Huxham. The fever seized *all colours*—long residence in the country was no exemption; black, white,

and coloured were carried off by the epidemic, and some by a second invasion. Blacks became yellow, as far as it could be observed on the skin, but was well marked in the eye. One gentleman, who had been nearly 20 years on the island, died with black vomit. The fever showed all grades, from intermittent—remittent—to concentrated yellow fever, proving a common origin, the type varying according to susceptibility, or acclimated state of the individual, though not without exceptions. With regard to treatment, it was soon found that the fever did not bear bleeding; it was fairly tried by some, and given up. I never bled one of my patients, and lost two out of 50 or 60 of all colours. I witnessed no symptom warranting the use of the lancet, though I would be far from stating that such might not have occurred in the patients of others. Calomel was the sheet-anchor, ten or fifteen grains, followed up in two hours by a dose of sulph. mag. et mag., and then every second hour after, while feverish, 3, 5, or 10 grains were given in a pill, combined with ¼ of a grain of opium and effervescing draughts, with nitre and sweet spirit of nitre between; sinapisms to scrob. cordis, to check vomiting, were directed with good effect; if headach was severe—the hair was thinned or shaved and cold applied, or cold douche, and sometimes it was necessary to blister the neck before relief was obtained. A tepid bath and warm pediluvia were occasionally used; the principle on which they were ordered is obvious—they tended much to relieve internal congestion. As soon as the gums were affected, the patient was generally safe, and quinine was ordered in two-grain doses every two hours. Such is a brief but faithful outline of the epidemic.

The different opinions of writers on tropical yellow fever are surprising, and well calculated to confound the inexperienced. One tells you your sole dependance is on the lancet—it is a sine quâ non; another states, after crossing the Tropics, throw your lancets overboard! Can such conflicting statements be reconciled? I think they may. It is well known that epidemics differ, arising from season and atmospheric constitution. The epidemic I have described occurred in the fall of the year, when all organic life appears depressed, as Nature herself points out; fevers at this time of the year assume an asthenic character. It was an observation of Sydenham, Gregory, and others, that Autumnal epidemics do not bear bleeding or debilitating remedies. Fever, occurring in the Spring or Summer months, puts on a phlogistic type, at which time, bleeding and other powerful antiphlogistics are indicated, and necessary to the salvation of the patient, facts which I have many a time witnessed. It is from not marking the different seasons, that we find such conflicting views of yellow fever by authors: one sees and describes a vernal epidemic—bleeding is the sheet-anchor; true:—Another Autumnal—the lancet not indicated; true also. In this way I would endeavour to reconcile such antagonising views, though something, also, is due to the malignancy of the occasional cause, longer or shorter exposure thereto, and other circumstances, which will suggest themselves to the medical reader. The black vomit is evidently altered blood; there can be no doubt that the patient who has hæmorrhage from his gums, has the same condition of the gastro-intestinal mucous coat, for many passed malæna-looking stools, the blood in the stomach, &c. passing downwards, and not appearing as black vomit. I mentioned a patient in whose stomach a pint of blood was found, which, had it come up, would have been black vo-

mit. Most individuals who had no formal attack of the fever, were nevertheless far from being well; they complained of general malaise, the gastro-intestinal and other secretions were vitiated, evinced by foul-coated tongue. I had a slight attack of the epidemic, and it was three weeks after the fever left me before my tongue became clean. Every *medical man* in St. John's, with one exception, was attacked, and all remarked the same obstinately-furred condition of the tongue. We had inhaled and were inhaling a poison; the susceptible had fever, while those less susceptible suffered also, though without formal fever, just as an individual, accustomed to take opium daily, feels a little stupid at an increased dose, which, indulged in by one unused thereto, would occasion alarming symptoms, if not death. Calomel acted, I conceive, in this fever, not so much as an anti-inflammatory, as by promoting the secretions, and restraining internal congestions within safe limits—equalising the circulation, and thus removing the overwhelming load which threatened destruction to the patient. I offer these remarks as a sketch only of a severe fever; but sufficient, I hope, has been advanced to give an idea of the features of the enemy with which we had to contend.

With regard to contagion, I may venture to say that it meets with no advocates in this Island, all being true anti-contagionists. During the greater part of the epidemic, I was in medical charge of the troops stationed in St. John's—detachments of the 36th, 74th, and 1st West India regiments. I immediately had the zealous co-operation of Captain Murray of the 36th, and Lieutenant O'Brien of the 74th, in issuing an order prohibiting the men going into town, and the result was, that, with exceptions I shall mention, three or four slight cases only occurred. The barracks at St. John's are directly to the east of the town. A soldier of the 36th regiment came into the barracks on leave from the Ridge (English Harbour), where the epidemic was raging among the garrison; he took fever, or rather brought it with him, and died without spreading it. Staff assistant surgeon Dr. Hopkins relieved me at the close of the epidemic: two men of the 74th regt. were brought over to St. John's barracks, from the neighbouring Island of Barbadoes (where there is a detachment), both with malignant yellow fever—one dying in seven hours after his landing, and the other in five days, with passive hæmorrhages, both most assiduously and affectionately attended by their comrades (sleeping in the same barrack-room, there being no hospital in St. John's); and yet no other case occurred!! Does this look like contagion? I attribute the immunity of the men to the order, restricting them to barracks.

ST. JOHN'S, ANTIGUA,
30*th Dec.* 1835.

THE

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JULY 1, to OCTOBER 1, 1836.

PATHOLOGY OF THE NERVOUS SYSTEM.

I. Lectures on the Nervous System and its Diseases. By *Marshall Hall*, M.D. F.R.S. &c. Octavo, pp. 171. London, 1836.

II. Outlines of Human Pathology. By *Herbert Mayo*, F.R.S. &c. Art. Of the Nerves.

The physiology of the nervous system has deservedly attracted the attention of the profession in a high degree. It involves more than that of any other system in the body, the consideration of the higher vital laws, and, while it partakes of their obscurity, it participates also in their philosophical interest.

It is not many years since, direct experiment being applied to the solution of the functions of the nerves, a sudden burst of discovery ensued, as brilliant as it was unexpected. It is not surprising, if the truths that were elicited led men to suppose, that the extension of experiments would decide the functions of all parts of the nervous system, as well as of a few. The natural result ensued. Experiments were wantonly and absurdly resorted to, and, after the most complicated butchery, the physiologist pretended to deduce some simple and certain consequences. The fallacy became, on reflection, apparent, and such experiments soon ceased to attract any notice but disgust.

We do not know that direct experiment has yet done all that it is able to do, for the elucidation of the functions of the nervous system. It would be presumptuous to say that. But it has done all that it seems capable of doing at present, and we may judiciously pause and enquire if other means of analysis are in our reach.

Careful and deliberate observation of phenomena, the investigation of the comparative anatomy of the nerves, and the study of their pathology, all promise to assist us materially. What has been actually discovered has not been accurately arranged. The feverish excitement generated by the rapid results of experiment, has hardly subsided into the calm and comparatively

slow process of generalization and induction. Now is the time for comparing the results of all investigations—of symptoms—and of pathology, as well as of experiment.

Experience has shewn that the clever experimentalist is not necessarily the close reasoner. Experiment, indeed, begets exactness, but exactness is sometimes the source of all fallacy. Demonstrative evidence is, of course, the best, and should be demanded where the case admits of it. But when the case does not admit of it, there is no error so monstrous or so dangerous as the obstinate attempt to apply the rules of demonstration to it. Such, however, has been done with respect to the nerves. As division of the portio dura shews its office, it has been supposed that division of the sympathetic should shew *its* office. It has not done so, and it has almost been insinuated that the sympathetic has no office at all. In an elementary work on physiology, the functions of the ganglionic nerves are not even hinted at, or if hinted at, that is all. The excuse of the author is of the kind we have described. He is an experimentalist—must have direct evidence and demonstration—in the instance of the ganglionic nerves he has neither—so he rejects a whole mass of reasoning, and of accumulative evidence, and morally burkes the system altogether. Such are the inconsistences of persons who affect extreme exactness. This very author believes in imhibition, and thinks that the tissues were made like a leaky boot—not waterproof. Reasoning is against this; but then there was in its favour an experiment, an apocryphal experiment. Reasoning, of course, kicked the beam.

We shall not, on this occasion, enter on the physiology of the nervous system. We shall advert to that in a succeeding number. At present we shall give a sketch of its pathology. That sketch will be taken from the two works whose titles head this article. Both are the productions of men of ability, but of ability of very different descriptions. Mr. Mayo is a bold reasoner—Dr. Hall is a subtle one—the former generalizes hastily—the latter is too much disposed to refine. Yet both, as we observed, are men of ability, and we shall proceed to examine their accounts of the nervous system.

Dr. Hall's work consists of twelve lectures. The first is dedicated to the anatomy and physiology of the nervous system, which, for the present, we eschew—the remainder treat in succession of congenital states of the nervous system, and of its diseases in early life—of the diseases of the nervous system in adult age—of cerebral diseases resulting from various affections of the system—of the diseases of the spinal marrow—and of the diseases of the spinal motor nerves.

The arrangement of Mr. Mayo is this. He considers seriatim, the diseases of the nerves as organs of consciousness—the diseases of them in reference to nutrition and secretion—the diseases of the spinal cord—the diseases of the encephalon.

The classification of each is founded more or less on physiological considerations. Those of Dr. Marshall Hall are peculiar. As we have already mentioned, we avoid on this occasion all allusion to them, and present only pathological facts, intermixed with what therapeutic consequences may be found to flow from them. It is our business to dovetail the two authors as cleverly as we are able, and to solder them with a little critical lead where they refuse a more intimate connexion.

We commence with the second lecture of Dr. Hall. It is on—

The Pathology of the Nervous System.

In order that our readers may follow this gentleman, we must inform them in limine that he divided the nervous system into—

I. The cerebral, or the sentient and voluntary;
II. The true-spinal, or the excito-motory; and
III. The ganglionic, or the nutrient, secretory, &c.

The first and the third divisions will be readily understood, and are sufficiently familiar. But what is the excito-motory section of the nervous system? It is this. If a stimulus be applied to a part supplied and regulated by the spinal nerves, the impression is conveyed by sentient nerves *to* the spinal axis, and the action consequent upon it is re-conveyed *from* the spinal axis by motor nerves to the original part. All this is to a certain degree independent of the brain, and therefore Dr. Hall has adopted the term, and attaches much importance to the thing. We make this explanation at once, that our readers may perfectly comprehend our author when he speaks of the excito-motory system.

One other remark appears to be necessary. Both the works before us are to a certain degree elementary. We have no intention of dwelling on what is generally admitted, and therefore we shall not, cannot offer a systematic analysis of either work. We shall select particular points, and those only, for extract, analysis, or commentary, as we may think fit. The form of publication adopted by our authors imperatively requires this arrangement.

Our simplest idea of the pathology of the nervous system, consists in supposing any affection of it to be either an exaltation or a diminution of the functions performed by any of its parts. In the sentient nerves sensibility may be increased or lost; in the motor nerves there may be incessant action, as permanent contraction of the muscles—or irregular action, as spasm—or want of action, as paralysis; the functions of the brain may be excited into delirium, perverted in many ways, or sunk in coma; the cerebral axis may cease to apprehend impressions, as when it is crushed—or it may exaggerate them, as when inflamed—it may fail to convey its stimulus to the muscles—or it may send an undue amount, as in priapism.

Let us look at one or two of the facts connected with the pathology of the cerebrum.

Palsy.

It has long been known, that disease in one hemisphere of the brain induces paralysis on the opposite side of the body. Dr. Hall remarks that it has been fully ascertained that disease confined to one hemisphere of the cerebrum, or of the cerebellum, and to one side of the mesial plane in the tuber annulare, constantly affects the *opposite* side,—whilst disease, confined to one of the lateral columns of the medulla oblongata and medulla spinalis, affects the *corresponding* side, of the muscular system. The encephalon has a *crossed effect*; the medulla a *direct effect*.

Let us now turn to Mr. Mayo. The consideration of palsy follows that of apoplexy in his arrangement.

Palsy, he says, from a single lesion of the brain, affecting only one side of the body, should be termed hemiplegia. This is a question of terms; but we prefer sticking to the old. Palsy is the general term—hemiplegia the particular. If he discards palsy, what substitute will he find for it? A substitute he must find, for it would be awkward to talk of hemiplegia of the portio dura, of the optic nerve. Besides, particular nerves may be palsied, independently of affection of the cerebrum. We repeat that it is an immaterial question of terms, but, so far as our own tastes go, we see no necessity for cramping our vocabulary.

Hemiplegia, then, proceeds Mr. Mayo, is either general or partial; that is, it invades either the whole, or part only, of the side attacked. Hemiplegia is alternating, when it invades one side of the face, and the opposite side of the trunk and limbs.

Hemiplegia is either paralytic, anæsthetic, or complete; that is, it may extinguish either voluntary motion alone, or sensation alone, or both at once. Hemiplegia, again, is either perfect or imperfect; that is, it may either suppress or only weaken voluntary power and sensation.

To illustrate these positions, he relates in succession cases of paralysis of the right side of the face—of the right side of the face and right arm, and of general hemiplegia of the left side, which terminated fatally in coma. These cases need not detain us. But the one that follows is more interesting. It is an instance of anæsthetic hemiplegia of the left side of the body, with paralysis of the right side of the face.

Case—July, 1835. "Thomas Embury, ætat. forty-two, one morning after breakfast, now seven weeks ago, on stooping to open a plate-chest which had been made of green wood, and kept closed some time, was so powerfully affected by the close smell which issued from it (such is his account), as to fall backwards, but without losing his senses, or striking his head. On recovering, he found he had undergone a paralytic seizure: the left side of the face and head and body and limbs were numb; the left arm more so than the left leg: he believes that no muscular weakness of the left side was combined with the anæsthesia; but the leg he thinks, dragged a little during the next two or three days. In four or five days, however, the leg, whether paralysed at first or not, had recovered both strength and feeling. The arm has been slower in recovering feeling; and even now the little finger and ulnar edge of the hand and forearm are in a degree numb. The sensibility of the left side of the face is entirely returned. What may have been the state of the right side of the face on the day of the seizure he does not know; but the following morning he observed that it was paralyzed: he could not close the right eyelid; the mouth was drawn to the left side; the sensibility of the right side was unimpaired. The first day he had some difficulty in swallowing; and for three or four days his speech was thick and imperfect. After a few days he felt a pain, for an extent which a shilling would cover, deep-seated on the right temple, midway between the eye and upper part of the ear. This pain has continued, though now considerably mitigated, to the present time. He has occasionally confusion of thought. He experiences at times sensations like life-blood in the arm and legs, but no spasm. The right eye is weak, but not inflamed: when it is unclosed, he sees double, owing to a slight deviation of the right optic axis outwards." 198.

As hemiplegia may depend on various lesions, its proximate cause is ob-

score. Yet Mr. Mayo conceives that he has proceeded some little way in the solution of the *why*. Shall we record a triumph, or deplore a failure? Let us see.

"The solution of the question which I am disposed to adopt, and which I believe not to have been previously entertained, is the following:—I conjecture the immediate cause of hemiplegia to be a depressing influence or shock, originating in the brain when in certain states of lesion, and propagated from it to the medulla oblongata and spinal marrow.

It may be asked, whether it is reasonable to suppose that the brain, when in a state of lesion, *can* originate any such depressing or palsying shock? Reasoning upon analogy, it is probable that the brain *may* possess this property. It is certain that, upon other organs than those of animal life, the brain *does* exert such disastrous and depressing influence. For example, in persons of a nervous temperament, sudden and overwhelming intelligence will sometimes temporarily stop the heart's action. Physical impressions, again, such as crushing a part of the brain or spinal marrow, will temporarily palsy the heart; an experiment the more conclusive, that the heart's action will continue undisturbed during the entire removal of the brain and spinal marrow, if the abstraction of these parts be made with gentleness. Is it surprising that lesion of the brain, which can palsy the heart, the action of which is not derived from the nervous system, should throw palsy upon the voluntary muscles, that in so many ways are habitually influenced through it? Such a force of depression, similar in kind, although much less in degree, mental affections alone have the direct power of temporarily producing; the 'genua labant, tremor occupat artus,' the weakness of terror, is probably an instance of imperfect or temporary palsy so produced.

Upon these and other grounds, which will be presently mentioned, it appears reasonable to believe that a lesion of the brain is capable of originating a depressing force, which can strike with palsy the organs in the cord from which the nerves arise; or that palsy from cerebral disease is not caused by the interruption of an accustomed stimulus, but by the production of a new and withering influence, transmitted from thence to the origins of the nerves." 200.

It is obvious that the chief merit of any explanation of this sort is its clearness. The fact that it affects to solve is admitted—the quomodo is the point at issue. If obscurity attends the solution of that, it leaves us where it found us, or plunges us deeper in the dark.

Unless Mr. Mayo applies the term shock in its ordinary sense, it conveys of course no clear idea. We presume, then, that in such a sense it is employed, and that Mr. Mayo's theory supposes the brain capable of originating a sudden, violent, and injurious impression upon parts, which it may or may not habitually influence.

But the very term shock does not imply a continuous action, while the palsy occasioned by lesion of the brain is as constant as its cause. A small effusion of blood occurs in a cerebral hemisphere—hemiplegia instantly results. Gradually the blood is altered, absorbed—gradually the hemiplegia ceases. Does this look like a shock—"a withering influence"? Is it consistent with what we know of the economy, to suppose that an organ is gifted with the strange and monstrous function, of originating a new action only for mischief when itself is altered?

Look at the plain case. The brain is sound—voluntary motion and sensation are perfect. The brain is altered—sense and voluntary motion are impaired. The brain recovers—sense and voluntary motion are restored. Surely the obvious rationale would be—voluntary motion and sensation de-

pend on the integrity of the brain, and are modified by its alterations. We have just the same evidence of the connexion of the intellect with the cerebrum—of the senses with it. The portion of brain with which the optic nerve is in relation is destroyed—so is sight; or is partially injured—and vision is perverted. Mr. Mayo's reasoning would go to the position, that sight is lost, not because the sense was the result of the right action of the brain, but because the brain transmitted a shock to the optic nerve. We crush a portion of the brain, and the individual loses his memory or becomes an idiot. All believe that this is because memory and intellect depend upon the brain, and are destroyed with its destruction. The evidence is just the same as in the case of hemiplegia. Mr. Mayo's explanation is as applicable to the one as to the other.

Mr. Mayo observes that analogy is for him, and he cites one. Strange that that analogy is evidence against him. The brain, he observes, receives a shock through the medium of the intelligence. The voluntary muscles are affected, and even the heart, confessedly not under the immediate influence of the brain, falters in its action. Supposing this the evidence of shock in one case, its absence should be deemed evidence against shock in another. Now, in the instance of hemiplegia, the heart is confessedly not affected. The patient has lost the use of one side of his body, yet his heart continues beating with nearly the same rhythm as ever. A pretty plain hint that those functions only are interfered with, which the brain has the office of regulating.

The whole reasoning is lax, and many questions are involved that cannot be so summarily settled. Mr. Mayo, for example, asserts, without any qualification, that the action of the heart is not derived from the nervous system. Nay, he esteems this so clear a matter, that it is even placed in the middle of a sentence. If, by nervous system, are merely meant the encephalon and spinal marrow, no doubt the heart is very independent of them; but, if we include also the ganglionic system of nerves, that independence is not quite so clear.

The remainder of the chapter on palsy is occupied with the attempt to answer four distinct questions. We may be sure that those questions are intricate, or they would not be separately treated—that they are important, or they would not be put prominently forward. Let us examine them.

1. *How does it happen that a lesion of one side of the brain invariably produces palsy of the opposite side of the body?*

There is not a student of two years' standing who does not know that this is so. There is not one in ten who can tell why. The explanation is anatomical and so far precise, and the chief admission necessary to give it weight is this, that the nervous influence moves in the direction of the filaments of the nervous matter—an admission which the most resolute stickler for facts may gulp.

"Anatomists therefore look with curious interest to the construction of the enkephalon, in the expectation of discovering some transposition or crossing over of nervous filaments from one side to the other, through which the crossing of the depressing influence, or palsy-shock, may be supposed to be conveyed. After the most careful research, it appears that such a transposition or decussation of nervous threads is to be found in the medulla oblongata alone. Where the medulla oblongata joins the spinal marrow, the *anterior pyramids* throw their

fibres downwards, in oblique decussation, each to the opposite side, in such a manner that the right anterior pyramid plunges into the centre of the left half of the spinal marrow, while the fibres of the left anterior pyramid plunge into the right half of the cord."

Mr. Mayo concurs, as most physiologists do, with those who think that these decussating filaments are the channels by which the palsying influence is conveyed from one hemisphere to the opposite side of the body. He does so upon several grounds; first, because these decussating fasciculi are the only ones which have been discovered in the enkephalon; secondly, because the position of these decussating fasciculi is exactly that which experiment and observation lead us to expect to be the place of the transposition of palsy; thirdly, because all the phenomena of hemiplegia, from lesion of the opposite side of the brain, may be explained upon this supposition; fourthly, because even the remarkable cases in which partial hemiplegia of the opposite side is combined with partial palsy on the side of the cerebral lesion, admit of a perfect explanation on the same hypothesis.

The chief facts in its favour are to be found in a paper by Dr. Yelloly. They have been glanced at by Dr. Marshall Hall in the paragraph that we have quoted from him. But they merit more special mention.

1. Sir Astley Cooper divided in a dog the right half of the spinal marrow, at the interval between the occiput and atlas: the dog became palsied *on the injured side.* It may be inferred from this experiment, that the seat of the transmission of palsy is to be found above the atlas.

2. Dr. Yelloly describes a case of hemiplegia, which had affected the *left* side of the body. On dissection, a tumor, of the size of a filbert, was found to have been imbedded in and to have made pressure on the *right* side of the muscular protuberance.

Thus while this case seems to prove that the seat of the transit of palsy is behind or below the pons, the experiment of Sir Astley Cooper establishes that it is above the spinal cord. The intermediate *somewhere* must be in the medulla oblongata or its junction with the spinal cord—*where* the decussation of the nervous filaments has been discovered. The evidence appears to be very satisfactory.

But other phenomena require consideration. The transmission of palsy across the body seems to be accounted for. Will the same explanation equally serve the cases which follow?

"Will," asks Mr. Mayo, "in the first place, the course of the decussating fibres account for the production of numbness, or anæsthesia, as well as of muscular palsy; for the former, although not a constant attendant of the latter, may be combined with it, or even exist without it? Upon this question no one, who has well examined the anatomy of these parts, will entertain a doubt. The decussating fasciculi of the anterior pyramid, on plunging into the opposite column of the spinal marrow, strike into its centre, and implicate themselves nearly as much with the posterior as with the anterior fasciculi; that is to say, with the sentient as well as with the voluntary portions of the cord: so that the wonder is, not that anæsthesia should be produced through their agency, but that it should be so seldom produced, compared with the frequency of simple muscular palsy.

Again: it is evident that palsy of *all* the spinal nerves of the opposite side of the body may be sufficiently accounted for, as a consequence of lesion of the cerebrum, if the anterior pyramids be supposed to transmit the palsy-shock;

for the fibres of the pyramids, which are continuous upwards, on the one hand, with the cerebral hemispheres of the same side, or with the seat of lesion on the other hand, are continued downwards into the upper part and centre of that tract, from which *the whole of the spinal nerves* are derived. But how is it possible to account for palsy of the opposite side of the face through the same channel, for palsy of the opposite side of the tongue, and of the opposite facial and auditory nerves? These phenomena may, I think, be thus explained: Where the decussating fasciculi of the anterior pyramid plunge into the opposite half of the spinal marrow, they are implicated, in a wonderful closeness of intertexture, with fibres, which, *in their upward course*, bend towards the places of origin of the ninth and seventh, and of the eighth and fifth of the palsied side. May it not be supposed that this interlacement may be a sufficient means of communicating the palsying influence to the ascending fibres, which are in close relation to the affected cerebral nerves? Thus, the palsy-stroke transmitted to the junction of the spinal cord and medulla oblongata, might spread its influence in either direction separately, or in both together, according to laws which may possibly be hereafter rigorously determined; sometimes striking the body alone with palsy, sometimes the face, sometimes both; sometimes palsying speech, sometimes deglutition, sometimes hearing." 203.

That it *is* by the implication of the fibres of the pyramid with other fibres in connexion with the ninth and seventh is probable. But we feel here the contrast between conjecture and the comparative certainty that the cumulative evidence in the former case afforded us. All is doubt, and we catch at the solution because it is the best, not because it is a good one. Much of the plausibility of Mr. Mayo's argument, owes its force to the employment of language symbolical of actions which probably do not exist. In a mesh of fibres the mind readily seizes the idea of a shock diffused amongst them. But more exact reasoning doubts the fact and disregards the metaphor. Such fact and metaphor are still more unsparingly employed in the passage we proceed to introduce. The reader might suppose that the cerebral influence, was dealing its blows like a hammer in a smithy, and the pith of the argument is the physical, and probably the false analogy.

"But the fifth nerve, why is it so rarely affected in hemiplegia? and the orbital nerves, why do they so frequently escape the palsying influence? These phenomena, it will be evident, are highly consistent with the supposition that the palsying force *strikes* exactly at the point where the decussating fibres of the anterior pyramids terminate. Supposing the paralysing impression *to be received* on this part, its force *upwards* should be weakened in proportion to the distance of each cerebral nerve from that part. But the fifth lies further off than the seventh, the third than the fifth; and something in that proportion is the infrequency of the palsy of these nerves in hemiplegia." 203.

All this is so very and so objectionably vague, that Mr. Mayo will do well to cancel it hereafter. For the present, however, he is not content with a modicum of a hypothesis, but manfully carries it out. The hammer still rings in the theoretical forge, and the physiological smith seems to think that "in for a penny, in for a pound" is a canon in philosophy. For he applies the same description of explanation to the occurrence of hemiplegia from lesion of one hemisphere of the *cerebellum*. The pons consists in great part of filaments which issue from each hemisphere of the cerebellum. These filaments meeting the filaments of the anterior pyramid of the same side, give them a shock, which is communicated to the same part as is paralysed in the cerebral lesion.

To explain the coincidence of hemiplegia on one side, with partial palsy on the other, Mr. Mayo relates a case in which these circumstances occurred. The patient recovered in a great degree; no examination after death could take place. The facts being uncertain, the case explains nothing, and, although Mr. Mayo's conjectures are ingenious, they remain conjectures. We may, therefore, ask our readers and ourselves the second question, with the hope that it may be answered more satisfactorily than the first has been.

2. *What reason can be assigned for the facts, that in general hemiplegia from cerebral lesion, the palsy of the leg is less complete, and capable of being more quickly recovered from, than the palsy of the arm?*

Any body who had heard of the shock which has been eloquently introduced by Mr. Mayo, would at once comprehend the necessity of applying it to the answering of the interrogatory. The distance of the toes from the brain being greater than that of the fingers, the shock is of course transmitted to the former with less violence, and does less mischief when it reaches them. Nothing could be more physically obvious.

But those who doubted the occurrence of a shock before, are not likely to be more satisfied now. If they believed that paralysis was interruption of the influence of the cerebrum, they would conclude that that influence, being most decided in the parts more immediately connected with the cerebrum, its loss would be there more sensibly pronounced. We must remember that, however the encephalon may preside over some of the functions of the spinal marrow, it plays also a part of its own, and its operations are least dependent on the brain the farther it is removed from it.

3. *Why, in a slow attack of palsy, are the muscular weakness and the numbness first felt in the extremity of the affected limb? Why in the hand before the fore-arm—in the fore-arm before the upper arm?*

"In this instance it may be presumed that a diminution of the usual quantity of stimulus or energy, transmitted along the nerves from the organs in which they rise, is the cause of the effect observed. A part of the cord is smitten with an imperfect palsy-stroke; it cannot energize as before, or throw along the nerves which arise from it the usual quantity of nervous force. Upon this supposition it would follow, that the defect of stimulus should first become sensible at the extremity of a limb. The weakened segment of the cord might be expected to be unable to throw out energy enough to fill a long nerve, while it yet might supply with adequate force of stimulation the shorter nerves of the portion of the limb nearer the trunk. The fact presents a remarkable contrast with the last class of facts adverted to, and shews at all events that the two are not referable to one principle. In slow hemiplegia, the arm is struck before the leg; but the hand is struck before the arm." 207.

It is well known that sensations, having their source in the course of a nerve, are frequently referred to its extremity. But more than this. Pressure on a nerve sufficient to occasion some interruption to its functions, or lesion of a nerve, will induce paralysis at its extremity, and its extremity only. We will mention an example of this. A girl had the head of the humerus excised. Abscesses and thickening occurred about the shoulder. Suddenly the *extremity* of the little finger, and of the ulnar side of the ring-finger, became insensible to ordinary stimulants. It was not the whole of those fingers, but their extremities only, that were thus affected. This loss of sensation endured for a long time, but gradually, we believe, subsided. Now here was an instance in which, no doubt, the ulnar nerve was impli-

cated near the shoulder in disease. Yet the paralysis was only felt at its very extremity. This appears to be an instance of the same sort, as the commencement of hemiplegia in the distal end of a limb. Probably the obvious explanation of Mr. Mayo is correct—it is the most plausible one that presents itself. The influence derived from the nervous centre being impaired, that impairment is first felt and most felt at the greatest distance from that centre.

4. *How is it to be accounted for, that muscular palsy is more frequent than anæsthesia?*

"The reason may be this: The office of the sentient nerves is probably an easier function than that of the motor nerves. In some experiments which I made upon the mode and quickness of reparation of both classes of nerves after their division, I found that the sentient nerves resumed their functions in a shorter time than the voluntary nerves. I divided the facial branches of the seventh and of the fifth nerves on one side in a cat: in the third week sensation had returned, but no sign of returning motion appeared till after the fourth. If this principle be true, it will solve the present question. The sentient nerves, it would appear, require a harder blow to palsy them than the voluntary. It deserves besides to be pointed out, that, as the office of the former is to transmit towards the centre, not from the centre, it is natural to expect that they would be less susceptible of a force proceeding against the habitual course of these motions. The connexion of the decussating fibres of the pyramid with the posterior part of the opposite half of the spinal cord, is likewise not *quite* as extensive as with the anterior." 207.

It is certainly consistent with all that we know, to suppose that mere sensation is a phenomenon requiring less effort in the nervous system, than the propagation of the motor influence. Whether this is the whole or the greater part of the explanation of the phenomenon adverted to, is another matter.

Mr. Mayo concludes the section, by an allusion to the well-known relationship between palsy and apoplexy. The one is, indeed, a greater degree of the other, or, rather, the producing lesions are so related.

One other circumstance deserves notice. It is the occurrence of *convulsions* on the same side as the cerebral lesion, concurrently with hemiplegia on the opposite. A case is related which is very interesting.

Case. W. Tucker, ætat. forty-two, brought into the Middlesex Hospital, and supposed to be intoxicated: he was drowsy, heavy, stupid, not insensible, answered some questions; the pulse small and slow. The left arm and leg powerless, face drawn to right side. When put to bed, he was seized with rigor, and complained of pain in the right side of occiput: in an hour afterwards the pulse rose, and the right side of the body became convulsed: v. s. ℥xviij: the convulsions ceased for a time, then returned with extreme violence, threatening to suffocate him: v. s. ℥xl: the respiration became more free, but the convulsions remained: he then became comatose. He continued insensible during the night, the breathing stertorous, right pupil dilated, left contracted, no pulse at the wrist: he died at 11, a.m.

A large cavity filled with blood, partly clotted, occupied the centre of the right hemisphere of the brain: it did not communicate with the lateral ventricle, but opened between the sulci of the convolutions, which for a large extent were lined with it; between their summits streaks of clotted blood lay, resembling veins.

There was slight sanguineous effusion on the surface of the anterior lobe of the left hemisphere.

It is possible, says Mr. Mayo, but very unlikely, that this may have caused the convulsions of the right side of the body. It is unfortunate that even this degree of obscurity should hang over the case. We lately saw, with an intelligent surgeon, Mr. Skegg, of St. Martin's-place, an instance of hemiplegia upon one side, and convulsions on the other. The patient was a young man, accustomed to drink hard, but of robust constitution. He was suddenly attacked with insensibility and stertor, and hemiplegia of the right side. Soon convulsions of the left side, which was sensible to stimulants, succeeded. No remedies exerted any influence on the symptoms, and, in about thirty-six hours from the commencement of the attack, the patient died.

On dissection, great softening of the left optic thalamus was discovered. It formed in its centre a sort of bouillie, without any appreciable vascular injection around it.

We return to Dr. Hall. We left him at the commencement of our pursuit of hemiplegia. We have agreed that *that* occurs on the side opposite to the one in which the cerebral lesion is found—on the same side as that in which the lesion of the oblong and spinal medulla is situated. He proceeds :—

"It has been further ascertained that, *in experiments*, lesions of the encephalon induce *paralysis only*, whilst lesions of the medulla oblongata and spinalis induce *convulsion* or *paralysis*, according to its severity. Hence it becomes an important question to determine the cause of convulsive affections in *disease* of the encephalon." 34.

Dr. Hall attempts farther on to explain this point. It is well known to surgeons, that a small degree of pressure on the cerebrum will produce convulsion—a greater degree of pressure, paralysis.* If convulsions occur,

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* Mr. Mayo, in his remarks on apoplexy, goes still farther than this. He observes, and we do not vouch for the correctness of the statement, but decidedly object to its positive character, that it is possible to distinguish when the effusion of blood is on the surface of the brain, because it is then uniformly attended with convulsions. He quotes from Abercrombie the case of a man, a habitual spirit-drinker, who, after drinking whiskey to excess, was found insensible, and had attacks of violent convulsions at short intervals. He died soon after he was thus found, in an attack of the convulsions in question.

On removing the skull-cap after death, an appearance was observed on the surface of the dura mater, of coagulated blood in small detached portions.—These appeared to have been discharged from small glandular-looking elevations on the outer surface of the dura mater, which were very vascular, and highly gorged with blood. There were depressions on the inner surface of the bone, which corresponded with these bodies. On raising the dura mater, there came into view a coagulum of blood, covering and completely concealing the right hemisphere of the brain ; it was about two lines in thickness over the middle lobe, and became gradually thinner as it spread over the anterior and posterior lobes, and dipped down below the base of the brain. The coagulum being removed, measured about ℥v. On the surface of the left hemisphere, the veins were turgid with blood ; on the surface of the right, they were entirely empty ; but the source of the hemorrhage could not be discovered. There was no fluid in the ventricles, and no other disease was discovered.

as they occasionally do, after an injury of the head, that is presumptive evidence of moderate pressure. To us there appears no greater difficulty in accounting for convulsion from cerebral lesion, than in accounting for hemiplegia. If it is demonstrable, which it is, that a small quantity of blood effused upon the brain will give rise to convulsion, it is not probable that, in *experiments*, lesions of the encephalon *do* produce paralysis only. What is the effusion of a little blood but an experiment? It matters, we suppose, little, whether that be effected by an intentional or an unintentional blow from a bludgeon. The effect is the same in either case—a little blood is extravasated. If convulsion follows in the one instance, which it does, why should it not follow in the other, which Dr. Hall assures us it does not? We would recommend him to re-consider this passage. But how is convulsion from cerebral disease or injury to be explained? Dr. Hall offers the following solution, which, we must own, does not, to our apprehension, do much more than express the actual fact.

"Disease of the meninges and of the brain, induces spasmodic actions. How is this explained? I think upon the principles of irritation and counter-pressure. The first *may* act through the medium of the nerves distributed to the membranes,—as the recurrent of the fifth of Arnold. In reference to the second, I may adduce several valuable facts. In an interesting case most anxiously watched, and accurately detailed to me, by my friend Mr. Toogood, of Bridgewater, of a little girl, aged thirteen months, the croup-like convulsion occurred repeatedly, until one day, when the bones of the cranium separated, the convulsion then ceased; in a case of spina-bifida related to me by Mr. Herbert Evans, of Hampstead, there was a croup-like convulsion whenever the little patient turned, so as to press upon the tumor. In the case of anencephalous fœtus, described by Mr. Lawrence, convulsion was produced on pressing on the medulla oblongata. In a case of meningitis given by Dr. Abercrombie, the anterior fontanelle became very prominent; pressure upon it induced convulsion. Hypertrophy of the brain affords an argument of the same kind: it induces convulsion, except in the case in which the cranium grows with the encephalon. These and other facts lead me to think that convulsion arising from cerebral disease, is thus to be explained." 44.

The only explanation that we discern is contained in this sentence—"upon the principle of irritation and counter-pressure." We may be obtuse, but really we conceive that explanation to amount to very little, and to leave a great deal to the genius of the reader. We repeat that there is no more difficulty in explaining the occurrence of convulsion than of hemiplegia. The only apparent difficulty is in the inconsistency of the former, following disease of the encephalon, and not experimental lesion—an inconsistency, which, for the reasons we have stated, we do not believe to be real. Unfortunately, however, the numerous experiments that have been made upon the brain have not dissipated the uncertainty that hangs over its precise functions. On the contrary, they have, in many instances, tended to render the obscurum obscurius, and, multiplying contradictory facts, have only thrown doubt on what was formerly deemed certain. That this is not an exaggerated view of the present state of the physiological pathology of the encephalon will be evident from the following passage.

"I must now," says Dr. Hall, "briefly state to you that, formerly, Saucerotte, in his Prize Memoir presented to the Académie Royal de Chirurgie, in 1768; and, more recently, MM. Foville and Pinel-Grandchamp, M. Serres,

M. Lacrampe-Loustau, and M. Bouillaud, have attempted to shew, that, besides this crossed effect of the cerebrum, affections of the corpus striatum, or its *middle lobe*, induce paralysis of the *inferior* extremities; whilst similar affections of the thalamus, or its *posterior lobe*, induce paralysis of the *superior* extremities; so that, if this opinion were true, there would be a *doubly crossed effect*. I use this phrase as a sort of *mnemonic* for you, if you should wish to speak of these opinions, for I fear I must call them by that name: M. Lallemand and M. Andral, after an examination of an extensive series of facts, have declared that the statement is without foundation. M. Bouillaud has further attempted to shew, that disease, or lesion, of the *anterior lobe* of the cerebrum leads to a loss of the power of articulation. But this opinion is equally contested by the two authors whom I have just quoted.

I must now briefly notice an attempt to *localize* the affections of the brain of a different kind, but equally disputed by these pathologists: MM. Delaye and Foville have stated that the grey or cortical substance is principally affected in *mania*; MM. Bouchet and Cazauvieilh, whilst they agree with MM. Delaye and Foville in their view of the pathology of mania, contend that in *epilepsy* it is, on the contrary, the white or *medullary* portion of the brain which is diseased.

The tubercula quadrigemina alone have a crossed effect, both of convulsion, and paralysis.

M. Ollivier observes that a hæmorrhagy into the tuber annulare only paralyzes the movements; M. Cruveilhier, on the contrary, asserts that such an affection destroys the sensations and the movements, but leaves the intellect uninjured. How many questions, then, still remain for future inquiry to solve!" 35.

How many indeed.

Dr. Hall adds, what is pretty well known, that in those cases in which hæmorrhagy occupies an extensive space, affecting both hemispheres of the cerebrum,—as in meningeal hæmorrhagy at the summit, or at the base of the brain, in extensive hæmorrhagy within the brain, extending from one hemisphere to the other, or into both ventricles,—*general* paralysis is observed; the same event takes place in the cases in which a clot is formed in the mesial line in the tuber annulare.

We stride over many pages to notice other kinds of paralysis. Their connexion with the brain is less direct, or more obscure than that of the forms of palsy we have quitted. To the practitioner and the physiologist they are interesting alike.

1. The first is Paralysis from Dental Irritation. Dr. Hall gives a case as a description.

Case. The child of Mr. Grant, an intelligent practitioner of Thayer Street, was twenty months old, and had been suffering for some time from dentition, being fretful, and having a cough during the night. On the morning of April 30th, 1835, her mother observed that she was incapable of raising the right arm; she retained the power of swinging the arm backwards and forwards, and of bending the forearm on the arm, but had not the least power to raise the arm itself, as if the deltoid muscle only was paralyzed. On examining the arm, the child suffers no pain, and there is not the least reason to believe that any accident could have occasioned this loss of power. The general health of the child, with the exception above-mentioned, is excellent; appetite good; bowels are every day relieved.

Dr. Marshall Hall, on seeing the child, recommended a gentle emetic,

followed by a dose of castor oil; the gums over the four eye-teeth, which are all coming forwards, to be carefully lanced every second day; and, ultimately, an embrocation to the arm; and a light unirritating diet.

Thus the child went on with little alteration till the evening of May 6th, when she had several fits of coughing, resembling the convulsive crowing of croup. There was no fever, and nothing was done till next day, when the pain was removed from the back of the head, two leeches were applied behind the ear, and the other remedies were persevered with. On the 14th, the child had evidently regained some power in raising the arm, and there had been no return of the crowing cough.

On the 21st, one of the teeth had arrived at the surface, and the others were advancing. On the 10th of June, she had nearly recovered the complete power of her arm, and her night-cough was almost gone. The other teeth were not quite through the gum. The child got perfectly well. It is scarcely necessary to repeat that the treatment consisted in lancing the gums —opening the bowels—and giving light diet.

2. "We frequently observe," says Dr. Hall, "a *hemiplegic* paralysis from defective development of the opposite hemisphere of the cerebrum. In this case, *both arm* and *leg*, but chiefly the arm, are involved in the paralysis. But it occasionally happens that *one leg only* is affected with a *partial* paralysis; the limb does not *grow* as the other leg does, but remains thinner and shorter; yet it does grow, so that the paralysis is not complete; and it is moved, only with somewhat less power than the other leg.

What is the nature of this partial paralysis? Is it of dental origin? Is it an affection of the spinal marrow, or of its nerves, equally partial? Cases and careful examinations are entirely wanting to determine these questions." 84.

Dr. Hall cites a very interesting case in the words of Dr. Webster, of Dulwich, the father of the child.

"When my boy," writes Dr. Webster, "was about twenty-months old, (he is now nine years,) he had a fit of illness, connected with dentition, which threatened the brain, and for which I opened the jugular vein and purged him. This took him off his feet; and, very soon after, he had a fall from a rather high cribbed; but this was not attended or followed by any apparent bad consequences. The child recovered his health; but, for some weeks, he seemed to have almost entirely lost the use of his legs, and, being uneasy about him, several of my medical friends saw him; amongst others, I think, yourself. He gradually, however, began to walk again, but not so steadily as before, as he tottered much in his steps, and was constantly falling over every little object that happened to be in his way, and he had much less command over the left limb than the right. He seemed to walk on his toes. It was not at first ascertained that one leg was more affected than the other; but as he grew up and was breeched, the matter became more apparent; he plainly walked more firmly on the healthy limb, and less so on the lame one, and he threw it about more in walking and playing, and rarely set down the heel, except when walking slowly, never when running. He now runs on the toes of that foot, and with a sort of lurch; the limb is less firm, the muscular power is evidently less, but the sensibility seems equal to the other.

I have only to add, that the affected limb is about an inch shorter than the other, which is the reason of his walking on the toes." 85.

In juxta-position with this case is one taken from Dr. Abercrombie's work, which Dr. Hall may well style able. A very admirable and philosophical work—a treasure of facts to all who shall come after. We cannot refrain

from introducing it, in order that our notice of this matter may be more complete.

"It is now upwards of twenty years since I first saw a girl, aged, at that time, about eighteen months, and previously enjoying excellent health. She had been left for some time sitting upon damp grass, and was immediately seized with fever, accompanied by such a degree of oppression as led to an apprehension of an affection of the brain. These symptoms, however, passed off in a few days, and, upon her recovery from them, it was found that she was entirely paralytic in the right lower extremity. She has, from that time, enjoyed uninterrupted health, and is now a tall and strong young woman; but the right lower extremity has continued entirely paralytic. It is also a great deal smaller than the opposite extremity, and several inches shorter. All the joints are remarkably relaxed, and the muscles flaccid; but there is no other appearance of disease in any part of it, or in the spine." 85.

Apoplexy.

From palsy we turn to apoplexy, two affections allied in cause, and commonly co-existent in fact. We shall not, of course, give a history of apoplexy, but merely select what has something in it to attract our special notice.

It is scarcely necessary for us to mention that from the slighter shades and symptoms of cerebral oppression up to what is familiarly called apoplexy, there is no natural resting place. The derivation of the term implies no more than suddenness of seizure, and a philosophical consideration of the disease does not tend to confine definition within narrow bounds.

Practically speaking, there is no point connected with apoplexy so important, as recognizing the slighter forms or the premonitory symptoms of it. Dr. Hall properly insists on this, and it is indeed of primary consequence. As we know that apoplexy is rather a disease of middle and advanced than of early life, it is at the former periods that we watch most anxiously for those seemingly trivial indications of cerebral oppression, which to the well-informed medical man are so significant.

The morbid anatomy of apoplexy is far from affording such decisive data for diagnosis and treatment as might be wished, and, indeed, expected. We find—rupture of vessels and extravasation of blood—serous effusion into the ventricles or on the surface of the brain—congestion of its venous system, without rupture—and softening of the brain—and we find nothing at all.

Nor is severity of symptoms proportioned to extent of lesion. In many severe cases, the morbid appearances may be very slight, or there may be none—and in cases, in which the symptoms are not severe, the lesion may be most extensive. Mr. Mayo quotes from Dr. Abercrombie a case which exhibits the absence of any absolute ratio between organic alteration and symptoms, and we dwell on this point the more because, in practice, astonishment is frequently expressed by medical practitioners, when a statement of the sort is made.

Case. A man, aged fifty-four, of a plethoric habit and short-necked, was admitted into the clinical ward of the Edinburgh Infirmary under the care of Dr. Duncan on the 31st of May. He was in a state of nearly perfect coma, speechless, and with palsy of the right side to such an extent that

even the intercostal muscles of that side did not act. The leg and arm of the left side were occasionally affected with convulsive motions. Breathing stertorous, deglutition much impaired, pulse 74. The affection was of three days' standing, and had come on with vertigo, loss of vision, violent headach, and vomiting. The usual remedies were productive of no service. On the 1st of June there seemed to be a slight return of intelligence, but coma soon recurred, and the patient died on the 3rd.

Dissection. No farther appearance of disease could be discovered, than that the choroid plexus seemed rather darker than usual, and the basilar artery was diseased at one spot. By the side of the artery, there was a spot of the cerebral substance, no larger than a barley-corn, which appeared somewhat softened, but even this Dr. Duncan considered as extremely doubtful.

Who would not have said that in such a case, at such an age, organic lesion would surely have been found?

The evidence on which we conclude that pressure, generally from blood, is the essential cause of apoplexy, seems to be very clear and satisfactory. That evidence commences, perhaps, with such a case as the one related by Zitzilius; where, a boy had drawn his neckcloth remarkably tight, and was whipping his top, stooping and rising alternately, when after a short time he fell down apoplectic. The neckcloth being unloosed, and blood being drawn from the jugular vein, he speedily recovered. Or perhaps it might start with the experiment of Sir Astley Cooper—who trephined a dog, and applied some pressure with his thumb upon the dura mater. The dog instantly became insensible, and had the symptoms of apoplexy. Sir Astley removed his thumb from the dura mater, and gradually the animal's sensibility returned. This appears decisive, and from this experimental pressure up to the case of compression from depressed bone, or from effused blood, scarcely a link would seem wanting in the chain.

Yet what point is there in medicine so settled, as not to foster doubt and admit of disputation? It has been, and it is a question with many, whether pressure is the essential physical cause of apoplexy. Mr. Mayo puts that question fairly:—

"The cases, which have been detailed, if they exemplify the features of apoplexy, exemplify no less the extreme difficulty of assigning their physical cause. In cases of sanguineous, or serous effusion, it appears natural to consider the mechanical pressure as the cause of stupor. But the stupor is often slow in coming on, and often does not manifest itself till some time after the effusion has taken place; nor is it necessarily permanent, although the effusion remains: for it may be temporarily relieved by bleeding, or without any apparent cause gradually wears off. And, if it would not encumber this volume by too many illustrations, cases might be adduced, in which large extravasations of blood have existed without any degree of coma; and still more numerous and striking cases of enormous accumulation of water in the heads of adults, without a single apoplectic symptom. The extravasation, or pressure of effused fluid, where it exists in apoplexy, is probably therefore a part only of the physical cause of coma; something there must be in addition, some change either in the condition of the nervous substance, or in the cerebral circulation, that is brought on by, although, as in the first instance quoted, capable of existing independently of, any effusion, to constitute the immediate cause of the mental oppression.

The symptoms of apoplexy bear, if not a certain, at all events the most

definite relation to the organic lesion, when they flow from sudden extravasation of blood." 187.

In order to set the operation of pressure in a proper point of view, it is necessary to attach due importance to two circumstances:—1. The suddenness of the compression—2. The possibility of pressure having existed during life, when no certain proof of it continues after death.

The evidence of pressure is positive. For, the thumb is laid on the dura mater—or the bone is knocked in with a bludgeon—or blood is suddenly effused within the cranium, and instantly apoplexy follows. If those causes are removed, the apoplexy, in a fair case, where too much mischief *has not been* inflicted, is removed too.

Suddenness of compression is shewn by conclusive evidence to be an essential element in the production of decisive symptoms. No fact can be better made out, than the symptoms of pressure on certain parts of the spinal marrow, or on the medulla oblongata. Yet in cases where the compressing force has acted slowly, the most extraordinary lesions have been unattended with specific symptoms.

We are not to conclude, because we find no blood effused, or no palpable congestion after death, that therefore no congestion has existed during life. The case of Zitzilius, the cases that every day present themselves, shew how fleeting cerebral congestion, attended with dangerous symptoms, may be. Such pressure may have existed to a degree fatal to the performance of the functions of some brains, yet in death or after death, when the circulation is so modified, it may have ceased to be apparent.

The evidence against pressure is not positive. It chiefly resolves itself into the absence of the proof of pressure after death. But this, as we have observed, is inconclusive, for it can be shewn that pressure existed and did injury, when after death, it has disappeared, and the laws of the cerebral circulation will explain many of those phenomena, which have been thought to tell against the theory of compression. No doubt cases may be picked out, where what must occasion pressure did not occasion apoplexy. But there is no instance in which the exception less destroys the rule, than this of the brain. There are no facts respecting it, decisive as they may seem, which have not striking exceptions. If any thing seems clear, it is that sudden depression of a portion of the cranium will produce the symptoms of compression; but it is *as* clear that such depression has occurred and persisted without occasioning such symptoms. It is hardly fair to say, that this disproves the operation of pressure, for it equally disproves the operation of every thing. It not only tells against any theory of consequences, but it tells against the *fact* of consequences, which is an absurdity. The true inference from such cases is, that we are not sufficiently acquainted with all the conditions of the cerebrum, nor with the laws of its functions, to be able to appreciate the disturbing circumstances in a given case. On the whole, we think the arguments are in favour of the physical action of compression constituting the most essential element, in the production of what we call apoplexy.

It might be expected that pressure about the cerebellum, or at all events, in the vicinity of the medulla oblongata, would be more rapidly fatal, than on the surface or in the substance of the cerebrum. Much of the latter is

probably devoted to the performance of functions intellectual, rather than merely vital. The fact, at all events, is as we have stated.

ACCIDENTAL APOPLECTIC SYMPTOMS.

There are some symptoms which may, perhaps, receive without much impropriety this designation. Sometimes they are present—sometimes they are not—and we know not, in many instances, why they should either exist or be absent. Practically speaking it is important to observe them.

Vertigo is such a symptom—Wepfer mentions the case of a woman, who was recovered after hanging, by frequent bleeding; she was for some time afterwards affected with vertigo, which subsided gradually.

Vomiting is another symptom of this sort. Dr. James Johnson attended a female servant whose chief symptom was obstinate vomiting. He sent her to St. George's Hospital, where, after ineffectual treatment, she died. No disease was discovered in the stomach, but an abscess existed in the cerebellum.

We were lately consulted on the case of a little boy who had been under the care of several eminent physicians. His chief symptom was vomiting, with a little pyrexia. We could discover no obvious lesion of the stomach. But the boy was of a lymphatic and strumous habit, and appeared rather heavy and drowsy. We determined to treat the case for a head affection, fearing there might be scrofulous tubercle in the cranium, or some organic mischief going on in it. We ordered repeated leechings on the temples, succeeded by blisters behind the ears, and aperient medicines. In a few weeks the boy had quite recovered, although he had been previously leeched and blistered very liberally on the stomach to no purpose.

"The alliance between vertigo and sickness is remarkable. In injuries and diseases of the head, these feelings perpetually accompany each other; and there are curious instances which even go to show that the one has a necessary connection with the other. In persons sick at sea, it is very certain that the shifting motion of visible objects, and the instability and want of support felt, or, in other words, the disturbance of the sense of equilibrium, and the giddiness so produced, are the causes of the sea sickness. If a person on ship-board, with feelings of nausea coming on, lie down and close his eyes, the nausea is wonderfully diminished; yet the only difference which he has made, is excluding impressions which favour the production of giddiness. When a person has drank immoderately of wine, on the contrary, if he shuts his eyes he experiences a strong vertigo or sense of whirling, followed by nausea; but if, instead of giving way to this sensation, he fixes his sight on a stationary object near him, the vertigo is corrected by the steadiness of the visible object; and as the vertigo disappears, the nausea wears off. The mitigation of the nausea is in both of these dissimilar instances the effect of getting rid of the vertigo." 194.

Headache is another symptom of the kind that we have been speaking of. Headache has many causes. We allude only to one form of it, happening under certain circumstances. Tissot for instance, so Mr. Mayo writes, mentions a woman, who, after complaining for some time of headache, was attacked with a great and sudden increase of pain, accompanied by loss of sleep, and died in a short time. On dissection no morbid appearance could be detected. A young woman, mentioned by the same writer, having, during the flow of the menses, suffered from a fright, the discharge stopped,

and she became liable to frequent leipothymia. After suffering from this and various other symptoms for several months, she fell into a profound sleep, from which nothing could rouse her; this continued four days; she then came out of it and appeared to be recovering, when, after several days, she was seized with severe headache, anxiety, and convulsions, and died. No morbid appearance could be detected in any of the viscera.

We quite agree with Mr. Mayo that the pathology of such headache is analogous to that of simple apoplexy. The affections are allied. There is no doubt that, exhaustion and extreme depletion will occasion headache. We cannot wonder at that, when we recollect what the effect of both is on the heart. This becomes irritable, and acts with rapidity and violence. What blood there is, is driven with force through the organs. We may presume that the effect on the head is headache—we know that in the arteries we have the bruit-de-soufflet, the indication of the extreme action excited by the heart. We remember the case of a man who had been furiously bled for hepatitis. He had violent headache, and throbbing in the cranium, and the bruit-de-soufflet was distinct in every artery of any size. He died and no lesion was found either in the head or heart.

In private practice we not unfrequently meet with such cases as the one we shall quote from Mr. Mayo. They are often perplexing, and the more so because the cautious physician reflects that a little slip on his part may be disastrous in its consequences. On the whole it is better to lean to the side of depletion: an error on either side soon renders the case more obvious. But it is better that a man should be obviously weak, than that he should be obviously apoplectic.

"A gentleman," as our author tells us, "between his thirty-fifth and fortieth years, of a temperament inclining to nervous, but stout and muscular, habitually taking considerable exercise, and living heartily, and engaged in an active profession, has experienced, on different occasions, when exhausted by days of previous fatigue, the following attacks. After partaking early of a hearty breakfast, and travelling twenty miles, he was seized with vertigo, and inability to stand, and slight nausea: he took two glasses of brandy without any effect; but became relieved upon producing vomiting, by means of salt and water, and lying perfectly still. On another occasion he awoke in the night, low, depressed, shivering violently, with a sense of failing power, like apparent dissolution; this was relieved by applying hot bottles to the feet, and administering brandy. On another occasion, when exhausted by over-exertion, he was taken with a sense of feebleness joined to imperfect vision; in which, at first, he could see only the objects to which the optic axes were immediately directed; in half an hour afterwards, this was changed to vision of the half of objects: with quiet and stimulants, in another half hour these sensations wore off. These seizures were followed by slight headach. He is now in perfect health; but feels on going through much excitement or exertion, that he might bring on a return of the feelings described." 194.

We quit the consideration of apoplexy, to glance at almost similar pathological states—those of concussion and compression. It is impossible for any surgeon to understand or to treat either well, who is not familiarized with the phenomena of those affections of the brain which usually fall under the care of the physician. The latter would acquire an insufficient idea of the complaints *he* ministers to, were he not aware of the consequences of injuries of the cranium. Let us, then, glance at—

CONCUSSION AND COMPRESSION.

1. The direct effects of concussion, or what is in common language called "concussion," are stated by Mr. Mayo to be, "syncope and something more." What the something more is, it is easier to imagine than to say, for, in truth, the exact definition of "concussion" is difficult. In some surgical works in the hands of students, no such difficulty would appear to be experienced; the positive symptoms and precise diagnosis of "concussion" and "compression," are there laid down, and they even go so far as to determine the opposite condition of the pupil in each.

It is interesting to inquire, but difficult to ascertain, what is the alteration that the structure of the brain undergoes in concussion. The opportunities of examining the bodies of persons who die from simple concussion are rare. It appears that it is, in some cases, impossible to distinguish any structural lesion—while, in others, laceration of the substance of the brain and ecchymosis may be found. Ecchymosis is only extravasation on a small scale, and, when it is present, the case trembles on the confines of concussion and compression. The symptoms of either are not separated by a broad and distinct line of demarcation, but are insensibly blended and confounded.

The occasional consequences of concussion have attracted curiosity. The operations of the intellect are interfered with, and memory particularly suffers. Dupuytren relates the case of a person, who recollected only the syllables pa pa. This small stock of language was all that was left to him. The cases published by Sir Astley Cooper and Sir B. Brodie are notorious.

Mr. Mayo points out the analogy between concussion and compression; —The instance, he says, in medical pathology to which it is most parallel, is the first stage of apoplexy from rupture of a vessel, which is characterized by paleness, feebleness of the pulse, and vomiting. In that case, in truth, the cause of the symptoms is equally mechanical—a blow from the gush of blood upon the brain. No doubt that, in each instance, the cerebrum receives a shock.

2. Compression of the brain from mechanical causes, does not differ in symptoms from apoplexy with extravasation. The study of one elucidates, and is necessary for the appreciation of the other. Whether the compression be from bone, or blood, or matter, does not signify, quoad the compression. But, in the latter case, inflammatory symptoms are associated with those of pressure, and may modify them. The following is an interesting case of the effects of suppuration.

"A young man had a small portion of the left parietal bone denuded by a blow; it became necrosed, and was already beginning to loosen, when he observed that the thumb and fore-finger of the right hand were weak and numb: in a day or two he was taken with a slight epileptic seizure, which lasted four or five minutes: a similar fit recurred a few days afterwards. This I attributed to the confinement of matter between the bone and dura mater; but as the bone was loosening, it was evident that there would shortly be a free escape for the matter; so that I thought it better not to apply the trephine unless the symptoms became more urgent. As the ulcerated groove around the dead portion of bone enlarged, the palsy of the thumb went away, the patient had no return of the epileptic seizure, the dead bone separated, and he recovered." 224.

Unfortunately, it seldom happens that when matter forms upon the dura

mater, after an injury of the head, an operation is sufficiently early to prevent extensive and fatal mischief. We have seen the skull trephined often when symptoms of suppuration in the cranium had occurred, but in no one instance has that operation been in such a case successful. On dissection, we usually discover that the suppuration on the surface of the dura mater is not limited to one spot, and frequently there is suppuration *under* the dura mater, and inflammatory softening of the brain in that situation. Yet favourable cases do now and then occur, to teach the surgeon not to abandon hope entirely. For instance:—

Sophia Pennett, æt. sixteen, was admitted into the Middlesex Hospital under the care of Mr. Joberns, on the 19th of October, 1815. She had been knocked down in the street by a carriage, the wheel of which had grazed the left temple and denuded the parietal bone. She had lost a considerable quantity of blood from the temporal artery, was low and weak, and vomited. The part exposed did not recover: about a third of the surface of the parietal bone was necrosed. November 9th, having gone on favourably in the interval, but complaining occasionally of pain in the back of the head, she was taken with shivering and sickness. Nov. 10, she could not articulate: pulse 90, and irregular; at times insensible. 12th, cannot put out her tongue: right side of the face and arm paralytic. Nov. 14th, Mr. Joberns trephined the parietal bone, when about a teaspoonful of matter escaped, which had been confined between the bone and dura mater: the latter was covered with a layer of organized lymph. The operation was performed about one o'clock; it was followed by an immediate amendment. Nov. 15: now quite sensible; her speech in great measure returned; she can move her arm. From this period her recovery was rapid.

A very fortunate case.

Blood may be effused *under* the dura mater. Cases have occurred, where, on trephining, the dura mater was raised and rendered blueish by blood beneath it, and when the prominent membrane has been punctured, the blood has spirted out to the height of seven feet. Sir B. Brodie has put on record a very remarkable fact of this description.

The following is a short summary offered by Mr. Mayo, of the different effects of compression.

"1. Coma without stertor: commonly resulting from extensive cerebral laceration and hemorrhage; but sometimes from remediable extravasation.

2. Coma with stertor, and partial hemiplegia; often resulting from depressed bone, or circumscribed extravasation, or suppuration, upon the dura mater.

3. Coma with violent convulsions; resulting from extravasation on the surface of the brain, sometimes situated without the dura mater.

4. Epileptic seizures; from small circumscribed effusion [or depression of bone?] upon the dura mater.

5. Acute pain in the head, from depression of bone.

6. Sudden and great decline of frequency in the pulse. This I witnessed in a child, supervening several days after fracture of the skull. The symptom was followed in a few hours by coma and hemiplegia: there was extensive suppuration between the bone and dura mater." 228.

The catalogue is not quite complete, for other consequences from compression have been witnessed.

7. Delirium is a symptom that sometimes results from pressure on the brain. We will relate a case which fell under our own care.

Case. A man was admitted into St. George's Hospital, after having fallen on his head. He was stunned for about ten minutes, but soon recovered his sensibility. Yet the sensibility was not perfect. When left to himself, he would continue talking in an incoherent way, and, when spoken to, said he would give us "a punch in the head." When asked if he had a wife, he replied—"Yes, too many." We should observe that there was extensive ecchymosis in the frontal region, and particularly in the neighbourhood of the left eye. On the third or fourth day,* he was suddenly seized with what looked like delirium tremens, but the delirium soon assumed a very violent character, and it was necessary not only to put on a strait-waistcoat, but to secure him to the bed, and set powerful men to hold him down. It was the most furious delirium we ever saw. What was curious, it was of an erotic character, and he used the most obscene language, and invited the nurse to go to bed with him. After this had continued for some hours, he gradually sank into the state of coma, with stertor, and died.

On dissection, it was found that the frontal bone was extensively fractured, the fracture running across the æthmoid, into the sella furcica, and both temporal fossæ. Between the bone and the dura mater, opposite the anterior part of each cerebral hemisphere, was a large quantity of firm black coagulum. Opposite the cribriform plate of the æthmoid bone, the dura mater was lacerated, and the laceration extended into the substance of the brain, which contained about two drachms of blood, and seemed slightly softened round it.

In this case, the symptoms were at first those of concussion. Afterwards they certainly were not the ordinary ones of compression. Yet there was an extensive fracture, with laceration of the dura mater and of the brain, blood *on* the former, and *in* the latter. From first to last there was a disposition to delirium. At first it was so slight as to be considered the result of intoxication—afterwards it was very furious, and lapsed into apoplectic insensibility. There was no appearance, however, in the lesion, of change corresponding to these great variations in symptoms. Could the slight softening round the clot in the brain have modified the latter symptoms? We see the same round apoplectic clots, without delirium.

This case occurred six years ago, and we saw none similar to it until the year before last. A woman was then admitted into St. George's, after having received a blow upon the head. She was insensible at the time, but recovered her consciousness in a great degree. On the second or third day she became delirious, furiously delirious. There was no heat of skin, the pulse was not accelerated, no symptom of inflammatory action was present. Recollecting the preceding case, we expressed our suspicion of pressure from extravasated blood, there being no evidence of fracture. In this opinion no one acquiesced. The woman died. On dissection, there was found extensive effusion of blood on the dura mater, beneath the left parietal bone, and no other lesion could be found.

Delirium, then, must be received as an occasional effect of compression.

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* We have full notes of this and of another similar case, but we cannot at this moment refer to them.

The only evidence of its cause during life, with which we are acquainted, is its sequence to an injury of the head, and its not being accompanied with the signs of inflammatory action.

8. In one case we saw extraordinary bulimia after an injury of the head, attended with all the symptoms of compression. The case was that of a boy. He would steal everything eatable in the wards that he could procure. The bulimia gradually subsided. Perhaps this was only a post hoc. We mention the fact, but attach little importance to it.

9. Mr. Mayo makes no mention of *perverted* sensations and *perverted* intellectual operations, as a consequence of compression. He mentions only coma and hemiplegia. Yet we all know that, after compression, there have been instances in which particular senses have been altered. One patient always perceived a foul smell, and things that formerly gave a pleasant odour now seemed to emit a stench. Loss of memory, particularly in regard to special objects of it, has been noticed. We need not multiply examples of a fact which has been frequently noticed and recorded.

10. If we recollect rightly, the loss of the power of properly generating or supporting animal heat, has been observed after an injury of the head. Mr. Guthrie, we believe, has published the case of an officer, one side of whose body is in this predicament. It is so much less able to support its temperature than the other, that the gentleman is obliged to wear on it a vast quantity of additional clothing.

Epilepsy.

On this head Mr. Mayo's observations are so meagre, that we leave him and turn to Dr. Marshall Hall.

He draws the distinction, or rather he insists on it, between *centric* and *eccentric* epilepsy. Centric epilepsy has its origin in lesion of the brain or spinal marrow*—eccentric epilepsy has its source in irritation of the nerves. The terms are new—the practical application of the view is old. All have been aware, that epilepsy may depend on organic lesion of the centre of the nervous system—or on irritation propagated to it from without. The difficulty has been to decide, in a *given* case, which is the disease. In this, Dr. Hall does not help us, nor will any speculative view assist us. The essential elements of diagnosis are—first, the knowledge of the distinction, which is old and general; secondly, the investigation of symptoms in the particular instance.

It is in the nervous system particularly, that we perceive distinctly how morbid anatomy forms but a portion of pathology. The functions of the

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* We write, in lesion of the brain *or* spinal marrow. Dr. Hall adopts the aphoristic style, and should, therefore, be concise and clear. Concise, indeed, he is, but frequently not clear. So far as we see, he regards epilepsy as a centric disease of the spinal marrow, when centric—as an affection of the nerves when eccentric. But, disregarding theory, there are numerous cases in which mechanical irritation of the surface of the *cerebrum* occasions epilepsy. Surely this is centric epilepsy, and centric *quoad* the cerebrum, and not quoad the spinal marrow. Dr. Hall indeed, points out encephalic tumors, hypertrophy, &c. as causes of epilepsy.

system are so subtle, and so essentially connected with every physical and psychical act, with every function of the organization, and with every part of it—the operations of the nervous centres are so dependent on the impressions conveyed to them from nerves, themselves are exposed to such numerous sources of disorder, that we cannot wonder if this system, above all others, displays a long series of functional affections. How true is the remark of Andral, which Dr. Hall has quoted—how calculated, coming from a pathologist of his character, to put to shame the small fry of arrogant morbid anatomists, who, for every why in symptoms have a wherefore in organic lesion.

"Que le nombre d'altérations connues," says M. Andral, "est petit à côté de celui des lesions qu'on ignore! Les cas où, après la mort, un trouve quelque chose d'appréciable pour le scalpel sont les plus commune pour les autres organes; pour le système nèrveux, c'est tout l'opposé: les cas ou on rencontre des lésions sont de beaucoup les plus rares. Cette assertion paraîtra paradoxale à ceux qui ne connaissent des lésions nerveuses que les trois ou quatre maladies qu'on observe dans les hôpitaux; mais les affections nerveuses se comptent par centaines, et pour ne parler que de ces grandes perturbations qui portent sur le mouvement, sur la sensibilité, sur l'intelligence, où est la lésion dans ces cas? La plupart du temps on n'en trouve aucune, ou celles qu'on observe n'ont aucun rapport avec les désordres fonctionels." 89.

Dr. Hall applies the observation to the eccentric diseases of the true spinal system. But it may be applied also to some of the affections of the cerebrum. How uncertain is the morbid anatomy of mania. Dr. Hall's own observation on this point is equally sarcastic and correct.

"The evidence from the morbid anatomy is quite deficient for practical purposes, unless we are enabled thus to distinguish cause and effect; and I fear this point has not been sufficiently considered by those who have addicted themselves to this department of medical science. It is sad to observe how a little effusion, a slight layer of lymph, is the *cause* of every thing, in the minds of some of these gentlemen of one idea." 107.

So difficult is it for the human mind to avoid extreme opinions and conclusions, that the majority of those who do not overrate morbid anatomy underrate it, and, opposed to the gentleman of one idea is the gentleman of none.

Centric epilepsy, whether it depend on lesion of the cerebrum or of the spinal marrow, is in the majority of instances beyond our reach. Eccentric epilepsy is remediable in correspondence to the actual condition of the part, irritation of the nerves of which produces it. We pause on this matter, for it is important, and, Dr. Hall's remarks have a philosophical character.

"The eccentric epilepsy is to be viewed as *curable*, however *difficult* of cure. By avoiding the exciting causes, its attacks are avoided, the susceptibility to returns subsides; these returns become less frequent, and less severe, and at length frequently cease altogether. Every thing depends upon rigid rules proposed by the physician, and strictly and perseveringly observed by the patient." 143.

The causes that he points out, are, 1, the presence of indigestible food in the *stomach*; 2, the presence of morbid matters in the *intestines*; 3, *uterine* irritation. But we may add to these, injuries of nerves, and organic alterations of the nerves, either from injury, or from alterations of the parts

about them. Such eccentric epilepsy will be curable or incurable according to circumstances.

Dr. Hall's analysis of the symptoms is at once precise and elegant.

"The first thing observed is a varied *distortion of the eye-ball*, which is drawn from the axis of vision, generally upwards, and outwards, or inwards.

The second symptoms are a forcible *closure of the larynx*, and *expiratory efforts*, which suffuse the countenance, and probably congest the brain, with venous blood. In all these circumstances there is a most marked and important difference between epilepsy and hysteria, on which I shall insist hereafter.

In the third place, we observe that the tongue is thrust out of the mouth by the genio-glossal muscle, whilst the teeth close upon it by the action of the masseters, and it,—or the under lip,—is frequently severely bitten. Or, without the spasmodic protrusion and consequent injury of the tongue, there is grinding of the teeth.

We next observe convulsion,—which is general, or of the whole muscular system, or hemiplegic, or confined to one side; or it occurs in the form of trismus, torticollis, in one limb, &c.

During these attacks, the *expulsors* of the fæces, the urine, or the semen, sometimes act, and there is the unconscious evacuations of these secretions. There is sometimes rigidity of the penis." 145.

Some facts are enumerated as causes of epilepsy—some pathological conditions as effects of it.

The former are set down—deep sleep; broken sleep; loss of rest; passion; vexation; exhaustion; inanition; and especially rising with an empty stomach, have frequently led to a paroxysm of epilepsy, and must, consequently, be carefully avoided in our rules of regimen for the cure of this disease. The act of venery may bring it on. Napoleon, we believe, suffered in this manner. Dr. Hall has known washing the hands in cold water occasion it.

The effects alluded to are the venous congestion of the brain, which results from the very nature of the attack—and the effusion of serum, after many attacks, which results from the venous congestion.

The objects of treatment are two-fold: prevention of the attacks—and prevention of their effects. This is to be done by cautiously avoiding the *causes*, by moderating the *paroxysms*, and by local means of subduing vascular action, and perhaps of depleting the vessels of the brain.

With the following quotation we conclude.

"The strictest rules must be laid down for the diet, for the state of the bowels, for conducting the catamenial periods. These last should be passed in bed, the feet and abdomen should be fomented, the warm water enema, and the opiate enema should be administered.

The immediate accession of the paroxysm may sometimes be prevented by dashing cold water on the face, or by exciting the nostrils by snuff, &c. In this manner the disposition to closure of the larynx, and expiratory efforts, is exchanged for sudden acts of inspiration.

In the paroxysm, the patient must be prevented from injuring himself by falls or blows. In this danger of injury we have another (§610) marked distinction between epilepsy and hysteria.

The stupor or coma induced by the paroxysm may require the administration of blood-letting, general or topical, according to its degree and duration, and probable effects.

Besides the means to which I have alluded, other remedies have been proposed

for the cure of epilepsy, in an empirical manner, without due attention to the *kind* of the disease. It is obvious that little attention can be paid to propositions and observations so vague and indefinite. These various remedies must be tried anew, after a strict diagnosis. We shall then arrive at an approximation to the truth in reference to the value of these remedies respectively.

The views which I have given of eccentric epilepsy are amply confirmed by the facts, that there is no constant morbid change observable in this disease, and that many patients, after long years of its attacks, have finally and fully recovered, —facts which ought to encourage us steadily to pursue the mode of treatment.

A system of exercises; regulated sleep; the shower bath; tonic remedies, &c. &c. must be added to the other plans." 147.

Here we must arrest our steps. We have travelled in a desultory manner, sometimes with Mr. Mayo, sometimes with Dr. Hall. Like a courtezan, we have picked the pockets of both, and here are the proceeds of our larcenies.

It was not our intention to offer a systematic account of the pathology of the nervous system. That would be too extensive and too elementary for a Review. Much must be then stated with which even students are familiar, and from which our readers would turn with disgust. We have endeavoured to select in the instances of palsy, apoplexy, concussion and compression of the brain, and epilepsy, some facts not generally known, some opinions deserving of attention, and some theories which require investigation. We have dovetailed as well as we were able, and we would fain hope that there has resulted neither a disagreeable nor an useless article.

Such a plan is more palatable to the public than the author. To cater for the former, the latter must be mutilated, and he cannot see with pleasure his disjecta membra dressed in a strange fashion, and served with foreign sauces. He feels he is but an element in an Olla Podrida, and his vanity is wounded by the insult.

But Dr. Hall and Mr. Mayo may console themselves with the assurance that the affront is not on them, but on the nature of their subjects. The works of both are in a great measure elementary, and professedly addressed to students. We could not therefore do more than select individual parts for criticism or for notice, and much as we should feel inclined to please them both, they know that we are compelled to please our readers.

The pathology of the nerves and of the spinal marrow yet remains for us.* There remains too, a more particular notice of the physiological views of Dr. Hall. One or other of these subjects will certainly engage us at the earliest opportunity. It is pleasant to be in communication with men of genius, as both our authors are. If we differ from them upon any point, we state fairly the grounds of difference, and if we are wrong there are the data for conviction. Dr. Hall remarks, in the volume before us, that he knows that men will dispute. It is right they should, for we may feel assured that in science it is disputation only that can lead to truth. Objections when not disingenuously urged, facts when fairly stated, are the best means for eliciting the right, and for supporting it. Criticism is only powerful when correct—against the fact it is, in the present day, utterly impotent.

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* We promise ourselves much gratification from an analysis of Sir B. Brodie's forthcoming paper on the Injuries of the Spinal Marrow—a continuation of his paper on the Injuries of the Head.

STAMMERING CONSIDERED WITH REFERENCE TO ITS CURE, BY THE APPLICATION OF THOSE LAWS WHICH REGULATE UTTERANCE. IN A LETTER ADDRESSED TO GEORGE BIRKBECK, M.D. &c. &c. &c. By *Richard Cull.* Octavo, pp. 50, stitched. London, 1835.

IT would be tedious to enumerate the various modes that ignorance, empiricism, and imposture have at various times proposed for the cure of impediments of speech. From the farmer in Joe Miller, who made his son sing—"Daddy your house is on fire," down to Mrs. Leigh, the Lady in New York, who forces her disciples to keep the tongue against the teeth uninterruptedly for three days, the plans have been innumerable, the proposers confident, and the success, of course, immense. Yet, singularly as it would seem, although each plan is perfectly successful, the one that follows is advanced expressly, because no such thing as success can be obtained. How this paradoxical state of things may be explained, we leave to others to determine.

The object of the author of the present pamphlet is not to set forth the infallibility of any one specific—of taking a deep or a short inspiration—of keeping the tongue up or keeping it down—of squaring all sounds by one vowel or one consonantic sound—of talking incessantly or not talking at all, but his aim is wider, his views more philosophical, and both may broadly be said to be—the education of the voice. We shall not enter into Mr. Cull's details, partly because they would occupy too much time, and partly because the majority of our readers would perhaps be hardly able to understand the somewhat learned terms he uses. In describing, for instance, the voice of a stammerer, he observes:—

"The portions of voice are about minims in duration—staccato on a rapid diminuendo of a wide interval downward in flexion, so that a word of only two elements is imperfectly formed." 42.

These are hard words, and abstruse to the uninitiated. Indeed were we disposed to hint a fault, we should say that Mr. Cull's practices in the elocutionary way had given his style of writing somewhat of King Cambyses' vein, or a little of the swagger of Ancient Pistol. But such faults of manner are slight blemishes only, and the character of the observations is characterized on the whole by good sense, and a philosophical spirit. We shall endeavour to give a slight sketch of the views and the advice of Mr. Cull.

He shews that stammering may depend on various causes; in other words, that as many parts are concerned in the production of vocal sounds and of speech, and as many individual actions are necessary in order to render it uninterrupted and perfect, the derangement of any, or the want of consent between all, may lead to the production of stammering.

"There are about twenty elements of speech productive of an interruption in various degrees of the continuity of the voice, and by their mingling with the remainder in our language, one occurs at about every fifth place. Although a person may stammer on all the twenty, yet from what has just been said, he does not necessarily hesitate at every fifth element, as the interruption depends

on several other circumstances—as the mechanism of the element enunciated, and the element on which the articulation takes place; and also on the quality and accident of the voice. The boundary to the duration of syllable sound in discourse is not necessarily the limit to a stammerer's utterance, as is generally believed. The laws which regulate syllabication are universal in their operation; they limit the syllables of the most civilized language as well as the barbaric; they are one thing. The laws which limit the stammerer's utterance take in more data to arrive at a conclusion, and are varied in each case; they are another thing. But the laws of syllabication will throw a light on defective utterance. I have not room, nor is it within my present object, to enter upon the demonstration of these laws. As part of the Philosophy of Speech it is an interesting study.

The quackery and mysticism in the cure of impediments of speech arises from the general ignorance of the philosophy of the human voice and speech. Explanations of their phenomena have been demanded, to administer to the necessities of defective utterance, and to satisfy the ear of taste in a just elocution, but in vain. Bread has been asked for, and the stone has been given. The subject called for examination by accurate observation and experiment, not for the transcription of Greek and Roman knowledge, as if it were impossible for us to do more than quote classic authority. The fact appears scarcely credible, that when knowledge is within reach—when it can be obtained from its very source—from its fountain, with the trouble only of precise perception, we have hitherto been content to take it from its streamlets in its vague generalities, and that mudded and contaminated by the prejudice and musical ignorance with which the ancients have disguised the little knowledge they appear to have possessed on this subject." 15.

And further on our author remarks:—

" Speech is produced by a series of voluntary muscular actions. When obstructed by the involuntary action of some organ, or misactions of others, it resolves itself into a want of dexterity in the use of those muscles employed in speech; and their use can only be acquired by unremitting exercise, under the guidance of those who understand the circumstances under which they act. This is a work of time, and therefore not likely to be adopted, until every means promising a cure in a few days or weeks shall have been tried, and found unsuccessful. And when as much time has been wasted in observing the empirical oath-bound-secret directions as would probably have effected a cure, he is so disgusted then with even the idea of further trouble, that he is scarcely willing to commence a course of progressive exercises—to begin *de novo* to learn on principle his own oral language; to acquire it through the drudgery of a strict discipline in a course of vocal and enunciative gymnastics." 16.

Mr. Cull observes, and with some shew of reason, that in any analogous instance, say the fingering of a musical instrument, the individual is taught to acquire the necessary degree of art by proper tuition and general practice. He is not told to hold his finger in one position, or to cease playing for a certain time. No one in his senses would dream of teaching a pupil to play upon an instrument thus. Yet persons who stammer, are supposed to be likely to attain a due command over the vocal muscles and organ by empirical directions of this nature.

Mr. Cull introduces his plan by a reference to two cases of stammering; one of which was cured by elocutionary practice and instruction. The first case was that of a gentleman known to the late Dr. Mason Good. This gentleman was one of the worst stutterers Dr. Good had known, yet he was at the same time one of the best readers of Milton's Paradise Lost.

The second case was that of a gentleman known to our author and to Dr. Birkbeck. He could not read prose, nor converse without stammering, yet the late Mr. Thelwall, a professor of elocution, effected a perfect cure.

The following brief quotation may, perhaps, serve to introduce Mr. Cull's mode of procedure.

"The fact that some with impediments of speech can sing, read poetry, and declamatory composition, without interruption, is well known; it is of common occurrence. But if such cannot read or even sing, while a friend is attentive to their attempts, they can accomplish either, if a noise exist during their efforts. If a continued note be produced, as in drawing the bow across a violoncello-string, the power of utterance is augmented. If a piece of slow music of well-defined rhythm be played, the facility is increased. If a person read the same composition simultaneously with them in a rich sonorous voice, the facility is again heightened, which is rendered still more facile by simultaneously reading a third or fifth in the gamut below their tones; but while they are thus glibly reading, if the accompaniment cease, the impediment as instantly recurs." 19.

We all see through our own glasses. Mr. Cull looks at the story of Demosthenes, spouting at the sea with his mouth filled with pebbles, through his own peculiar spectacles. He thinks it probable that defective rhythm was the cause of Demosthenes' hesitation, and that, like the case quoted, and many others similar, cured by Mr. Thelwall by the correction of their rhythm, this in the case of Demosthenes, might be effected by his unconscious imitation of the rhythmical sound of the waves, dashing at periodic intervals upon the rocky shore. However this may be, the correction of the stammerer's "rhythm" is a paramount object with Mr. Cull. Elocutionary exercises, then, are brought into requisition by our author to educate the voice, and give it that force and direction which constitute the rhythm in question. His position, in short, is, that the acquisition of dexterity of the muscles employed in speech, through the diligent practice of vocal and enunciative exercises, is the only certain mode of permanently removing impediments of speech.

He analyses the manner in which an impediment occurs. He supposes the individual to have hesitated once; the sound on which he hesitated presents itself again, and again he stammers, from three causes:—

1. The memory of the hesitation;
2. The doubt of its present utterance; and
3. The hesitation.

Now, if we can introduce a new term, a knowledge of the means to utter a sound or combination of sounds which hitherto have impeded or stopped the current of utterance, the sequence will be changed, and if diligence only be used in submitting our new term to the influence of the laws of suggestion, to be confirmed into habit, the impediment never need again appear; because we have now a tripartite remedy for the previous tripartite hesitation.

We have—

1. The memory of the hesitation;
2. The knowledge of the means of utterance; and
3. Its application.

Of course habit must confirm the lesson taught and learned. In all cases, says our author, the application of elocutionary principles to obtain steadiness of voice, and regularity of action of the vocal organ, have alone miti-

gated the impediment, and when the vocal qualities have been used to simple elements, whether produced by appulsion or divulsion of the organs concerned in their mechanism, the effect has uniformly been the acquisition of power to enunciate every element without hesitation, and proceeding onwards, the varied articulations of these elements in every possible combination, forming speech at the bidding of the will. In this way the difficulty is not merely evaded, it is actually removed; and so far from there remaining any peculiarity of drawling, or mannerism, there is a sharpness in the speech, and command over the whole organs, so as to produce at will a vocal delineation of the several thoughts and their relations constituting the sense of an author. Nay, Mr. C. assures us that not only young persons, but adults also, have been cured by the means he recommends and adopts. His "vocal gymnasium" has been of great service to the ancient stammerer.

We have now done all we are able to do, in explaining the general principles of Mr. Cull. That they *are* general principles is evident. We do not suppose that their application will prove successful in all cases—perhaps they may not be permanently successful in the majority. But, founded in reason and in the spirit of philosophy, they cannot be injurious, and, in many cases, may be competent to release an individual from what must be regarded a very serious calamity.

It may be asked if this is all—if Mr. Cull does not offer some particular rules. He does not. At the hands of disreputable persons, his reasons would be unsatisfactory—his practice tainted with the suspicion of empiricism. But in this instance the excuse is judicious, and no doubt sincere—it is founded on the impossibility of the conveying complicated instructions in elocution, in terms that would at once be clear and comprehensive. We recommend the present pamphlet to those who stammer, and to those who are interested, and what physician is not, in understanding the causes, and being acquainted with the principles, that ought to regulate the treatment of impediments of speech.

THE PROOFS OF INFANTICIDE CONSIDERED. INCLUDING DR. HUNTER'S TRACT ON CHILD-MURDER, WITH ILLUSTRATIVE NOTES, AND A SUMMARY OF THE PRESENT STATE OF MEDICO-LEGAL KNOWLEDGE ON THAT SUBJECT. By *William Cummin*, M.D. &c. &c. Lecturer on Forensic Medicine. Duodecimo, pp. 95. Longman's, August, 1836.

THERE is no doubt that infanticide is one of the most puzzling problems in medical jurisprudence. Dr. William Hunter, in his eloquent attempt to cut the Gordian Knot, has really mystified the subject, and rendered the solution of the question more difficult. If, indeed, the whole female world had clubbed to fee an advocate for pleading their cause, in case of frail slips, and certain disagreeable consequences thence occasionally resulting, they could not have employed a more powerful or successful one than Dr. Wil-

liam Hunter. No one can peruse his tract, without seeing the special pleader in almost every page. We do not blame him. He was on the side of humanity and mercy, though his arguments have often defeated rigid justice. Be that as it may, his Essay is the Koran of the Bench and the Bar. The Judge quotes it with implicit faith, and the counsellor cross-examines the witnesses on the difficulties which it portrays. It requires some brass, and it involves some danger, to openly and confidently oppose the sentiments of a Hunter on the subject of infanticide. To do so, a witness must have all his wits about him. He must be familiar with Dr. Hunter's tract itself, and he must be conversant with the Doctor's weak points and errors, as exposed by modern investigations and experiments. Both these objects will be obtained by a study of Dr. Cummin's little volume. In the first place, he has republished the text of Dr. Hunter's Essay—in the second place, he has appended notes to it in order to estimate the value of Dr. H's objections to all tests (for this is the tendency of his Essay) in ordinary cases of child-murder. In the third place, he has given, by way of summary, a comprehensive view of all the points specially connected with an investigation of the proofs and tests of infanticide. But it is not sufficient that such things are done, unless they are done well. We think they are done well—and that this little vade mecum contains the quintescence of all that has been written on the subject of child-murder. We should be very sorry to go into a witness-box without first conning over every page of this little manual.

To offer concentration of what is already compressed to the smallest possible space, would be ridiculous, and a specimen is very inadequate to convey an idea of the performance. Yet we have no alternative, and the following extract relative to the hydrostatic test, is important in itself, and one that may be more properly insulated from surrounding matters than most others.

THE HYDROSTATIC TEST.

"In order to apply this test properly, we ought to have a vessel (such as a glass jar) of sufficient capacity to contain both the lungs and heart, and to suffer them freely to float or sink, according to circumstances. Pure river or rain water should be used, and its temperature should neither be too low nor too high —say 60° Fahr. The vessel being nearly full, let the lungs and heart and the thymus be removed from the chest (taking care previously to tie the large blood-vessels), and let the whole be placed in the water together.

We should then observe whether the parts, thus collectively, swim or sink. If the latter, whether they reach the bottom quickly or slowly. The lungs may then be separated from the heart, and tried one after the other, as to their tendency to sink or remain buoyant. They may next be cut in pieces, and examined in detail as to their gravitating properties; and ultimately the fragments may be pressed so as to expel the air as completely as possible.

Now the chief and most obvious inferences derived from the hydrostatic test, are, 1st, that if the lungs swim, the infant breathed, or was born alive; 2dly, that if they sink, the infant did not breathe—it was still-born.

1. *Swimming of the Lungs.*

If the lungs, wholly or in part, swim, the inference is, that respiration to some extent, more or less, has taken place; but there are certain doubts or objections which may be raised, and are to be removed before our absolute decision is pronounced.

Objections.

(*a.*) *Putrefaction* may cause the lungs to float. This is true, in certain circumstances: when the lungs are in that state of putrefaction in which gases are generated, and cannot immediately escape, they are buoyant, and swim on water. But putrid lungs do not always float; their putridity may have attained such a degree as to keep them at the bottom, even though they had once contained air in their air-cells. In the latter case, by the way, the hydrostatic test is of no use; and neither will any other test avail; for the infant's body must, in such a state of things, be one mass of corruption.

But in ordinary cases submitted to the medico-legal examiner—say within a few hours or days after birth—there can be no room for even supposing the presence of putrefaction. In fact, the lungs are known to be among the last, if not the very last, parts of the body which become putrid; and it has often happened, that when the body of an infant has been found in a state of putridity, the lungs have still been fresh, and fit for the application of the proper tests.

When, however, there is reason to suspect that the lungs float owing to this cause, let them be examined; and if putrid gases are really developed, rendering them specifically lighter than water, those gases will be seen, in large blister-like vesicles, on the surface and between the lobules of the lungs; whence they may be readily expelled by pressure under water. For greater certainty, the lungs may be cut in pieces, and each piece pressed separately; such pressure will not destroy the buoyancy of the parts, if they have ever received atmospheric air into their cells; whereas they sink at once if they had floated through mere putridity.

(*b.*) *An emphysematous condition* may cause the floating of the lungs. It sometimes happens that infants suffer violence in the birth; the labour, perhaps, being tedious, and the mother malformed. The sides of the chest may be so pressed against the substance of the lungs as to do those organs injury: they become inflamed and puffy, containing air in large vesicles on their surface; and this is what some authors call emphysema. When such a state does exist, it may be recognized by the experienced eye, and by the superficial air expelled, as in the case of the putrid gases. No serious obstacle consequently can arise from this cause to the application of the hydrostatic test.

(*c.*) *Air may have been artificially introduced.* In the notes to Dr. Hunter's tract (p. 35, *ante*), this objection has been pretty fully considered. The *static* test may here be brought to our aid. Air blown into the lungs of a still-born child never produces all the changes which follow natural respiration. The moment the atmospheric air is admitted into the lungs of a living child, those organs are expanded, and their vessels filled with blood from the heart. Their weight consequently is increased,—doubled, as we have seen in some instances: so that by comparing the weight of the lungs with the weight of the body, a presumption of much importance may be formed. Again: another peculiarity by which the effects of inflation may be distinguished from those of respiration, is, that strong and energetic pressure will cause to sink every particle of lungs artificially inflated, while no mere pressure, short of absolute breaking up and mashing of the parts, will cause those lungs wholly to sink with which an infant has naturally respired.*

The objection that artificial inflation might have been practised, it must be confessed, may sometimes present the medical jurist with more than ordinary difficulty. But the circumstances of the case ought to save him from vexatious

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* For this method of testing artificial inflation (already noticed, p. 37, *ante*), we are indebted to Mr. Jennings, of Leamington. See *Trans. Prov. Associat.* Vol. II. p. 435.

and needless investigation. The truth is, that such a plea on behalf of an accused mother is extremely rare, not only because, in most cases, it has no foundation in truth, but because, to render it probable, evidence of many collateral facts ought to be forthcoming. The female who would endeavour to save her child by inflating its lungs, should have given other proofs, besides, of her maternal tenderness: she should not have concealed, at least from some intimate friend, the fact of her pregnancy; her delivery should not have been secret; she should have prepared for the birth—the living birth—of her infant; there should be no marks of wilful violence on the body: in short, it is easy to judge from the history of any given case, whether the accused *wished* the life or death of the child, and therefore whether it is likely she *would*, (even allowing that, with sufficient strength and self-possession at such a moment, she *could*) inflate the infant's lungs.

Another plea, for *humanity's* sake, suggested by Dr. Hunter and others, is that inflation might have been practised by some malicious person, in order to trump up a charge of infanticide against the mother. Now there happens never to have been, as we trust there never will be, an instance of this kind of malice. Only consider all that would be required to make it in any degree effective. The diabolical perpetrator of such a deed should have some medical and medico-legal knowledge; his interference, too, could hardly have been premeditated—at least it must be contingent on the infant being born dead. In this case, too, there should be no collusion, or semblance of guilt, about the mother; no secresy, no feigning, nor dissembling: in fine, no violence on the body of the child; or should there be marks of violence, they should be such as were probably inflicted *after* death, not before it, as the infant is presumed to have been still-born; so that, on a little reflection, it must be seen how purely frivolous and gratuitous—how almost utterly impossible, it would be to substantiate a plea of this kind, were it ever set up in a trial for infanticide. But, as we have said, we are not aware that it ever has been.

(d.) The infant may have breathed in the passage. It is beyond a doubt that an infant *may* breathe before it is wholly expelled from the mother; but if it be so vigorous as to commence respiration thus early, what may have caused its death before it was wholly born? Such cases are universally admitted to be rare, and when they do occur, to be owing to tedious delivery, or some physical obstacle on the part of the child, or the mother, in the way of malformation. If any thing of this kind have caused the infant's death, it ought so to appear in evidence. Respiration in the passages may also take place, where the child is born by the feet, and the head is detained for some time; or where the hand is introduced to accelerate a tedious labour. But neither of these cases is likely to occur in the practice of legal medicine, for they imply the presence of medical or other assistance; at least the circumstances preclude the idea of concealment. The objection, therefore, of breathing before delivery, ought not to be admitted without some feasible ground." 64.

We recommend this little work in the strongest manner.

THE REPORT OF A COMMITTEE ON THE NEW POOR-LAW ACT, APPOINTED BY THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION, AT THE ANNIVERSARY MEETING, HELD AT OXFORD, AND READ AT THE ANNIVERSARY MEETING, HELD AT MANCHESTER, JULY 21, 1836. Octavo, stitched, pp. 38. Worcester, 1836.

THIS Report is on a subject of great importance to the bulk of medical prac-

... that we can do little ... facts that it contains; ... purposes.

... in the condition of ... under review. The ... memorialized the ... influence on ... laws calculated ... Bad in prin- ... ..., and destitution ...

... and profligacy. ... a servile war ...

... Poor-law Amend- ... sudden revo- ... is probably un- ...

... says that the ... must not be ... principle ... in private ... on in ... philanthropy ...

... pauper is ... shall know ... own, he ... procure ... work," ... with man ... I was were ...

... principle of ... balance. ... gives ... establishment ... mischiev- ...

... facts are ... evidence to ... opinion is ... their performance as ...

... the New Poor-law Act, ... here and there, ... system must ... spite of them, the ...

fact of the progressive improvement of the pauper population remains uncontradicted by any thing like satisfactory evidence, and whilst the rate-payers are relieved, the *rate-paid* have been benefited. The essential benefit, however, is to come—is to be looked for some years hence in the condition of those who are now the children of the paupers. Habits of industry and of dependence on their own exertions are generated, and those who are really interested for the well-being of fellow-creatures, have grounds for satisfaction in the prospect of the future.*

But it may be questioned whether the general principle on which the New Poor-law is administered is applicable to the *sick* pauper—whether medical attendance should not be furnished on a more liberal scale than other necessaries.

That the pauper should have medical advice is clear. We give it to the felon. The only difficulty in this case is to combine justice to the rate-payer with justice to the pauper, and justice to the medical man with both. The difficulty of the case is extreme, and it is set forth in strong colours in the present pamphlet.

Should medical advice be given by the State to the mere poor? We think there can be little question that, with certain limitations, it should. The poor man cannot be expected to do much more than support himself with necessaries. Medical advice is always expensive, for the mere cost of medicines is great. It is a luxury beyond his reach; and the more so, because it is usually wanted in proportion as the ability of labour diminishes. In a labourer's family, if the labourer himself is sick, the whole income of the family is stopped, and at the same time an additional expense is incurred. But whilst we grant medical relief to the poor, we should encourage them, gently encourage them, to do their best, by benefit societies and associations of that description, to procure medical assistance for themselves. Judiciously constructed benefit societies are still a desideratum for the lower class of artisans and labourers; and there is no doubt of their more general adoption, as this class is thrown on its own resources.

For the present, we shall say nothing on self-supporting dispensaries, but proceed to examine the manner in which the Poor-law Commissioners have acted towards the medical profession. The best way, on this occasion, is simply to set forth the facts that the Committee of the Provincial Association have elicited. Those facts should be widely known, in order that there may be data for the discussions which are impending in Parliament, and are actively going on out of it.

The Committee observe, that the bulk of medical men have evinced a backwardness in forwarding statements of the circumstances which have occurred within their knowledge. The reasons are obvious—indolence in some—acquiescence in favourable arrangements in others—the terror of local influence in the rest.

The Committee start with claiming for the profession a due remuneration for attendance on the pauper. The medical man contributes his share to

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* We would advise our medical brethren to disregard the general declamation on this subject, and to read the Reports of the Commissioners, and the artic' on the subject which have appeared in the Edinburgh Review.

of the districts of the Aylesbury union, the surgeon resides at a distance of *seven* miles from one part of the district, where medical assistance might be obtained within *two* miles.—In another district of the same union, the nearest point to the surgeon's residence is *seven* miles, and the most remote *twelve*. Under the old system *sixteen* medical men were employed for the parishes of this union, containing forty parishes and four districts; under the new system *three* medical men only, one of whom was likewise appointed to an extensive district in another union.—In the Wheatenhurst union, comprehending *fourteen* parishes, and necessarily much travelling, the Commissioners induced the Guardians to waive a contract with the established practitioners, and to engage *one* young man from the schools, who had neither a horse nor instruments.—In the Faversham union, including twenty-five parishes, only *one* medical man was employed.—Numerous cases of a similar kind could be adduced." 17.

The districts divided and devised for general purposes have been made medical districts without reference to the convenience of procuring medical assistance. This is particularly exemplified in the Thame union. The distribution of the parishes in the districts of this union is so unsuited for medical purposes, that the nominal district surgeons were unable, by themselves, to perform the duties required. In the Ivor district of the Eton union, formerly *four* established medical men were located near the boundary, at three different convenient stations: under the present arrangement, *one* only has the charge, and he residing at an extreme corner of the district. It certainly does appear most unjust to the patient, to appoint him a surgeon residing many miles off, when one could be found much nearer—and most annoying to the surgeon to require that, for a scanty remuneration, he should be put to such extreme and unnecessary inconvenience. The Committee remark that a singular practice has crept in, to obviate the difficulties which have thus arisen. The nominal medical officer of the district has been permitted to engage other practitioners, residing in different parts of his district, making his own terms with them. This, be it observed, has been entirely *optional* with the medical officer: the Guardians merely stating that they should consider him *responsible* for the whole.

Responsible! This is laughable enough. Surely the Guardians could not keep their own countenances, when they uttered that melancholy joke. But this is not all.

"The proper performance of medical duties has, moreover, received another check by the new regulations. The power of deciding as to the necessity of medical aid in any case of illness, has been vested in the relieving or parish officer. Hence a fair opportunity for the early and successful treatment of disease, has often been lost to the medical man, and his judgment fettered by his necessary dependance on the discretion of these inferior officers." 19.

To be sure there is here a choice of difficulties. On the one hand there is a malingering pauper, and a medical man whose interest it is, *unless* there was a contract, that the pauper should be sick. We do not say that such a feeling would influence the majority of medical men. But, unfortunately, necessity operates too powerfully on many of our profession both in town and country, and however unwillingly we may open our eyes to the possibility of occurrences of this sort, those out of the profession will and do make it an element in their calculations. But if there is a chance of evil in allowing the medical man to decide, there is a still greater chance of a person ignorant of medical matters, *and* whose interest it is that the pauper

should not be sick, having to determine the point in question. Such an arbiter will be very likely to refuse relief to persons in the early stages of disorders. When we consider the distant residence of the relieving officer, his constant occupation, and the parish officers' frequent unwillingness to act, added to the increased remoteness of medical advice, we may well believe that dangerous delay has occurred, and, under the present system, will still occur.

3. *Liability of the Medical Officers to Insult.*

The evidence collected by the Committee goes to shew that medical men in general, and especially those engaged in parish practice, are liable to offensive and degrading treatment from the new authorities. They are summoned and may be reprimanded by the Board of Guardians, and are by no means treated with the consideration due to a scientific and benevolent profession.

Such are the complaints against the operation of the New Poor-law on the profession. They may be resolved into imperfect remuneration, and vexatious or, at all events, inconsiderate regulations. It may be urged:—"If the remuneration is really imperfect, if no indirect advantages compensate for the scanty payments from the pauper-fund, why do not medical men refuse to do the work, why do they struggle in a ruinous competition with each other." Such a question would be reasonable, and the reply to it exhibits in the strongest manner the necessity that exists, not only for professional union, but for some controlling power which shall check those slighter professional delinquencies not cognizable by the existing tribunals.

The reason, then, why medical men have been forced to accept the proposed scale of remuneration on ruinous terms, is this:—The Commissioners invite young men just embarking in practice, and allure them with the *spolia opima*, not of the parish, but of the surrounding country. They know that young men, to get a footing in a place, will gladly take the parish, or the union, for the very lowest possible remuneration. Parish practice introduces to other practice, and an adroit well-informed young man, who has the parish, may do serious damage even to the established practitioner who has it not. This is the rod that the Commissioners keep in pickle for the refractory, and a very effectual rod it has been. But while we give the Commissioners credit for the cleverness, we cannot compliment them on the honourable or proper feeling of the manœuvre. It may be effectual, in a great degree it has been so, but if it rouses an influential profession to hostility against the Poor-law System, its ultimate policy may be questioned. The tact of the Commissioners has been considerable, and their inquiries into the abuses of the old poor-law have taught them not a little astuteness. Let a thief catch a thief, is a motto that they appear to have got by heart and to have acted on.

They have plausibly argued that the competition is fair and open. They know pretty well the sort of fairness it embodies.

We have gone through the principal facts of general importance, contained in this Report. They prove two things: first, that the Poor-law authorities naturally endeavour to drive the hardest bargain with the medical profession; and, secondly, that the profession is not true to itself.

The Poor-law authorities are peculiarly circumstanced. A furious and insane clamour has been incessantly directed against the New Poor-law. A

part of the press lives by pandering to the praiseworthy but ignorant ben volence of the mob of every class. To meet this organized and formidal opposition, the Poor-Law Commissioners have been obliged to enlist soi strong feeling of the community on their side. They *have* enlisted a ve strong one, its avarice. The old poor-law was extravagant—this is econ mical. The saving already effected is immense. That circumstance alo will defeat the opponents of the measure.

The pressure from without has contributed, no doubt, to increase the d position to clip the "profits" of the medical practitioner to the uttermo But it is notorious that the ultra-economists have not hesitated to denou gratuitous medical assistance. Lord Brougham is reported to have deni the utility of Hospitals and Dispensaries.

These considerations may explain, but they do not justify the conduct of the Commissioners. These gentlemen have evinced, so far as we can see, no especial coyness in accepting salaries themselves. They have not been public-spirited enough to put up their own places to the chances of a "ten- der." We may allow something, no doubt, for their consciousness of the possession of supreme ability. Yet, withal, they contrive to fatten on the poor. What *right*—what right, we mean, in equity, have these well-paid functionaries, who draw their thousands annually from the savings of the poors'-rates, to demand that medical men should expend their time, and occupy their skill for nothing. No right save the tyrant's—power. Justice and reason are against them—their own well-lined paunches cry fie on them—and they may be sure that what is inconsistent with fairness will not, in the long run, be beneficial to the best cause. Our remarks on this head are impartial, because we neither are, nor by possibility can be, parish-sur- geons—and that they are unprejudiced will probably be conceded, as we do not belong to the thick-and-thin opponents of the New Poor Law. This we think, on the whole, to be a wise, and, in its final effects, a humane en- actment. But we do not think that the proceedings of the Commissioners, in respect to medical relief, are characterized either by wisdom or humanity.

The true remedy is in the hands of the profession itself. One thing alone is wanted, to secure it victory in a just demand for *moderate* remuneration for its services. That one thing is, however, hard to get—it is *union*. We want some central power, which can morally and effectually punish the crime of lese-majesté against the honour, interests, or dignity of the profession. We want some body similar to the Law Association. We are not without hopes that, sooner or later, we shall have it. Our brethren in the country have been industriously prejudiced against the medical men of the metro- polis. The general practitioners have been arrayed against the physicians and surgeons, and, in return, the latter have learnt to regard the former with jealousy. How foolish, how injurious this is, the present proceedings are determining. On this schism the enemies (no, we will not say the enemies, but undoubtedly *not* the friends) of the profession reckon; and they bully the respectable surgeon in the country with the protégé of some London teacher.

The Provincial Association is, we trust, the nucleus of one which will not be provincial—of one which will embrace the members both of town and country. That, however, is not yet the case. The shoe pinches now, and it must be eased at once. Our advice to our country friends is this. Con-

tinue to collect facts—make on every occasion suitable, but gentlemanly remonstrances to the Boards of Guardians and Commissioners—put the public in possession of the case—urge it with reasoning and with absolute truth, not with clamour and exaggeration—and appeal on all suitable occasions to the Legislature. Above all things be united, but united as a scientific profession should be, not as a set of political brawlers. You may be assured that, as in all other cases, justice will prevail in the long run, and that reason will find its way to the interior of the most bigoted bosoms.

We say nothing of the recommendations of the Committee, partly because that would be unseasonable, and partly because we do not altogether approve of them.

De la Prostitution dans la Ville de Paris, &c. 2 vols. 8vo. By *M. Parent Duchatelet*, M.D.

It is the duty of the medical philosopher to investigate the nature and causes of moral evil as well as of physical ills—and for this good reason, that both are inseparably connected, in causes, effects, and consequences. The investigation which occupies these two volumes has been very ably conducted by a talented physician, who paid the debt of Nature just as he had finished the work, and at the early age of 45 years! The matter of this inquiry is exceedingly curious and interesting. The inquiry could not have been effected in this country at all, because we have no police regulations or registry of abandoned females as they have in France. The labour, time, and research expended on these volumes must have been prodigious, and the work itself will stand a monument of Dr. Duchatelet's industry and perseverance.

In this number we can do little more than announce the publication, and introduce to our readers a few particulars that will create a desire for a full exposition in our next number.

We shall first notice a table which shews the number of prostitutes annually registered in Paris for 21 years—namely, from 1812 to 1832 inclusive. In the former years were registered 15523, and this astounding number has kept gradually on the increase, so that, in 1832, no less than 42,699 abandoned females were registered and licensed for the deplorable trade of destitution and destruction! A friend of the author's, while residing in London, in the year 1834, made especial enquiries as to the number of prostitutes in this capital: but nothing positive could be learnt, because no record is kept. Some magistrates estimated the number as high as seventy thousand—others as low as eighteen or twenty thousand. He thinks the truth may lie about the number of thirty or forty thousand. Still, considering the disparity of population in the two capitals, the balance is far in favour of the British metropolis. It is a curious and remarkable fact that, in the year 1812—that of the disastrous retreat from Moscow—the number of prostitutes was nearly 7000 less than two or three years afterwards.

The author has constructed a curious chart, in which the different pro-

vinces or departments are shaded deeper and deeper according to the number of prostitutes which they annually send to the metropolis. As might be expected, the departments of the Seine—that is, Paris itself, is as black as ink can make it, shewing the awful number of 4744, as its quota! One single department (Loxere) is unsullied by ink, having contributed nothing to the mass of Parisian prostitution.

There is a table indicating the avocations of the parents, and another denoting the employments of the prostitutes themselves; but from these tables we cannot collect much that would be satisfactory. This, however, may be observed, that the more sedentary the avocations—the more uncertain the employment—and the more congregated the *employées*, the more likely they are to afford nutriment to the destructive leaven of prostitution.

In Paris, the great mass of *filles publiques* emanated from the artizans. Very few were furnished by families of condition. In the provinces, a considerable number were furnished by respectable shop-keepers and professional people, as barristers, physicians, &c. But still it was from the workshops (atteliers) that the great mass of abandoned females came.

Education. This was difficult to ascertain; but, in general, it was found to be very low among these unfortunate beings. One-third of them were incapable of writing their own names.

Illegitimate Births. An idea has prevailed that a great proportion of the women of the town were, originally, illegitimates. A rigorous investigation has disproved this opinion. The proportion among them was about 1 in 4 in Paris, but much less in the departments. It is curious that among the registered street-walkers were individuals possessed of rentes to the amount of 500 francs, and even 2000 francs annually!

Age. Where this could be ascertained, it was found to vary from the age of 12 years to 50. There were very few below 16, and few after the age of 40. Some, however, appear to have been allowed to inscribe their name at the age of 10 and 11—a scandalous permission!

Primary Causes of Prostitution. These are numerous, and probably some of those alleged are fictitious. They were as follows. Almost all of the prostituted acknowledge that they had led a disorderly or irregular life for some time before becoming actually prostitutes on the town. Few or none came to register their names, who were not deflowered previously.

Idleness. Among the primary and predominant causes was IDLENESS! Females abandoned by their parents, and without any avocation, see nothing but starvation before them, and are therefore fain to fly to prostitution for support! Many who came to inscribe their names on the fatal list, had not tasted food for some days before they could make up their minds to the dire alternative!

VANITY. This, and the wish to dress finely, added greatly to idleness, as a cause of prostitution, especially in Paris.

SEDUCTION. This is a very efficient cause, particularly in the country. The poor deceived creatures come to Paris in search of their seducers, and finding themselves without support, are obliged to have recourse to the town. There are always a great number of abominable bawds on the watch for these country girls. Many who are seduced in the country, come also to Paris, to hide their shame, and with the full intention of going on the town.

Domestic Chagrin and bad Treatment, at home, drive many into this wretched line of life. The brutality of step-fathers and step-mothers is one of the most common excuses which females from the country make, when they first inscribe.

Long Sojourn in Hospitals is set down among the causes of prostitution. In these institutions the bawds have their agents always on the watch to seduce young females into the haunts of ill-fame on leaving the establishment.

The Misconduct and bad Example of Parents are no inefficient causes of loss of virtue. Widowers living openly with concubines afford a sad example to the daughters, and lead to the most disastrous consequences. Separation of fathers and mothers has a similar effect.

Loss of Employment and Want are, of all causes, the most accused, and perhaps justly so, by those who inscribe their names on the black list of prostitution! The salaries of females employed in dress-work, and numerous other sedentary avocations, are only sufficient to procure subsistence for the time, and when the season is over, or any circumstance throws them out of work, they are forced to go on the town, or starve. These causes are daily becoming more efficient, by the multitudes of young men who are now usurping the habits and employments of females in all kinds of work. It is often found that mothers abandoned by their husbands have taken to prostitution for the support of their children—and girls for the support of their aged parents!

Our author observes that, at first sight, one would be tempted to attribute much of modern prostitution to modern civilization; but history informs us that this vice was very common in the middle ages, and consequently in the midst of barbarism. Our acquaintance also with people in a state of incivilization leads to the inevitable conclusion that prostitution is, as it were, inherent in human nature!

The following numerical particulars are curious and melancholy.

Out of 5183 inscriptions, there were 164 instances of two sisters inscribing at the same time—4 instances of three sisters inscribing—3 instances of four sisters entering at once on this wretched system of life. There were 16 instances of mother and daughter inscribing together—4 of aunt and niece—22 of cousins coming to the same office for the same purpose!

Chap. II.—Manners and Habits of Prostitutes.

This enquiry is considered by our author as of the utmost importance; because we cannot expect to introduce any amelioration among these unfortunates, without a knowledge of their manners and habits.

If we only take a superficial view of these "filles de joie" (improperly so called), we might be led to conclude that they delight in their profession, and are more than usually happy. But when they are in prisons or hospitals, where they have leisure for reflection, and speak their sentiments, they present a very different aspect. They then afford incontestible proofs of the misery which presses on their souls at the moment they are forced to wear the semblance of happiness! They are conscious of their depravity and degradation, and, consequently, they are uneasy except when among the companions of their own ignominy and disgrace. The sight of modest

women and of the mothers of families is insupportable, and, by a kind of involuntary impulse, they are inclined to insult them, in vengeance for the degraded state in which they find themselves! However immodest and indecent they may be in their vocation, they endeaaour to hide their disgrace under other circumstances, and endeavour, where it is possible, to pass for what they are not. In general, they are dreadfully afraid of meeting those who knew them before they became abandoned. The sight of a juvenile acquaintance, in an hospital, caused one of these unfortunates to become insane! M. Pariset, indeed, has seen numerous instances of prostitutes becoming insane, from reflection on their wretched and despicable state. At one time, in LA PITIÉ, there was no chapel for the impure wards. Afterwards an altar was erected for their use. They were overwhelmed with joy on the occasion—not from religious feelings, but because they considered themselves as not so much degraded in the eyes of society as they had been before the altar was erected.

Religious Sentiments. The Parisian prostitutes are, in general, profoundly ignorant of all religious duties, and destitute of religious feelings. A great number of them are scarcely impressed with the idea of a Divine Providence! Nevertheless many of them, by a kind of instinct, are taken with devotional feelings at the sight of funerals, or when on the bed of death.

Prostitutes still preserve some Sense of Modesty. Many instances of this kind are given by our author, all of which prove, that there is much less of this remaining amongst them than amongst the same class in this country. There is a great improvement in the external behaviour of the Parisian prostitutes within these last few years. The same may be said of the same class in this country. Those who remember the streets of London 40 years ago, and compare 1796 with 1835, must be able to testify to the immense amelioration of external morals in that short space of time!

Marks on the Bodies of Prostitutes. Many of these unhappy creatures have letters and characters imprinted on their bodies, in the same fashion as our sailors and soldiers have. They are generally the proper names of men or women, followed by the letters P. L. V., *pour la vie.* It is not a little curious that, on the bodies of young females, we find the names of men —while, on those of a certain age, we find the names of females. In this latter case, the engraving (if we may use the term) is almost always between the umbilicus and the pubes. Although "pour la vie" is attached to the first, and even many subsequent names, yet it often happens that twenty, thirty, or forty new lovers, "for life," are seen engraved on the frail and false tombstone! Of late years, they have found the means of effacing an old inscription, when they wish to insert the name of a new lover. Sulphuric acid and indigo are said to afford the means of effacing the old marks.

Intemperance. This is almost universal, even among the French prostitutes—and it is not much to be wondered at in any country. The life of a prostitute is one of extremes—all excitement at one time—all torpor, ennui, or triste reflection at another. It is natural to expect that they would fly to stimulants in the moments of sadness—and the habit, being once formed, is never afterwards shaken off. The habit of *malpropreté* and mendacity is also nearly universal.

Good Qualities. There is hardly any class of people, however debased

and depraved, among whom some favourable traits may not be discovered. Prostitutes form no exception. One good quality consists in their universal disposition to assist each other in sickness, misfortune, or distress. If one of their comrades is taken ill, they all hasten to afford her succour. They convey her to the hospital, if necessary, and there visit her daily afterwards. If put in prison, they supply her with clothes, and every kind of comfort in their power. They will strip themselves, rather than see their comrade naked! This generous sentiment is probably engendered by the conviction, that they are a class abandoned and despised by the world, and, consequently, that they have nothing to hope but from each other. But it is not a little remarkable, that this sympathy for the sufferings of their own class not unfrequently extends beyond the circle, and reaches those who do not belong to the same vocation. Many instances of this kind are related by our author, and which are exceedingly honorable to the hearts of these unfortunate creatures! Nothing is more common than to find prostitutes supporting aged parents, or distressed sisters, out of the miserable earnings of their wretched trade! It has been sufficiently ascertained, that prostitutes are far from being anxious to avoid pregnancy. On the contrary, they rather feel proud of this state. They are sure of succour from their companions, before, during, and subsequent to parturition. They make excellent mothers and nurses—often much better, indeed, than are found among those who are not reduced to a state of prostitution.

Almost every Prostitute has a particular Favourite. Whatever be the violence of passion that has led young females into a state of prostitution, nothing can be more certain than that they soon get entirely indifferent to the illicit and promiscuous intercourse with the other sex—which indifference often amounts to a loathing, which they are necessarily obliged to conceal, and even disguise. The practice of selecting some favourite, to whom they become attached for a time, is almost universal. The letters addressed to them, and which are often opened by the police, especially when they get into prison, disclose the names of statesmen, generals, literati—all ranks, from the Crown downwards! Prostitutes of the better classes, however, generally select their favourites from among students of law and medicine, and also among young advocates. The middle classes of *filles publiques* find their paramours among young shopkeepers of every description, especially the tailors and habit-makers, a genus so exceedingly numerous in Paris. To these may be added the hair-dressers, ambulant musicians, &c. &c. The lower orders of the meretricious tribe attach themselves to the working people (ouvriers) of every description and grade, down to a class of the most abandoned villains of the human species, in the form of man. One of the most remarkable traits in the prostitute character, is their extreme attachment to their paramours. They not only take every pains to save them from the offended laws, but even support them when out of employ. "*A considerable number of young men in Paris have no other means of subsistence, than the wages of prostitution earned by these filles publiques.*" Whenever these females enter a house kept by a prostitute proprietor, they stipulate for the free entrance of their favourites twice, thrice, or four times a week. Among the lowest classes of prostitutes, the most inhuman treatment on the part of their flash men will not cause them to rebel, or part from their tyrant masters. They are often brought to the

hospitals beaten to mummies, by these devils in the shape of men; but their victims will never bring them to punishment! These fellows, indeed, are almost all robbers, thieves, and rascals of the blackest dye.

The author enters into a long detail of the most deplorable, disgusting vice, into which a considerable number of the Parisian prostitutes fall, and which we cannot here describe. It is sufficient to say, that it is an unnatural intersexual connexion with each other!! The details are too horrible to be placed on record!

Classification of Prostitutes. Hitherto our author has spoken only of these abandoned creatures *en masse*. But there is a necessity for dividing them into classes. There are two or three genera, the most dangerous to society and destructive to morals—who are, in reality, as complete strumpets as any on the pavé of Paris, who yet defy the police, and even bring legal actions against those who may incautiously designate them as prostitutes. We shall glance at some of these—unfortunately not peculiar to the Gallic metropolis.

Femmes Galantes. These are the tip-top of their profession—the aristocracy of the ladies of easy virtue. They are generally kept-mistresses, or partly so. They dress in the highest style of fashion—live in unbounded luxury and extravagance (as long at least as they can)—and demure themselves in all public places as modestly as "a —— at a christening." Yet there is something in their air and tone that clearly indicates them to all who are in pursuit of such objects. They suffer themselves to be accosted—to be followed—and they soon lead their admirers to perdition! They are known by the term "*femmes gallantes;*" but we are, happily, unable to translate this term into our own language.

Femmes à Parties. We know of no English designation corresponding with this term. Beauty alone is not sufficient for them. They add the charm of various accomplishments and graces to an "*esprit cultivé.*" Admission to their circles must be through an introduction of a *respectable* friend. They have soirées—give elegant entertainments—and the gaming-table forms a part of the evening's amusement and ruin! They are, of course, *a l'abris de la police.*

Femmes de Spectacle et de Theatres. This is a very numerous sisterhood. Their manners and habitudes differ from the preceding classes or genera. They muster from four to five hundred in Paris. These three divisions, as we said before, are veritable prostitutes, though not registered, or under the surveillance of the police. They are the most dangerous of all—and are the ruin of many thousands annually in the French metropolis.

Filles en Carte. These are they who are registered and licensed by the police. They are subjected to periodical examinations by authorised medical inspectors. But even in this grand class there are numerous grades, the higher looking down on the lower orders with the most sovereign contempt. They have their *habitats*, and dare not, or cannot, pass the barriers which custom and their own wills have erected. Some of the most beautiful creatures in existence, make their debut in the most infamous haunts, and there grow old or die, without the power of passing into a higher order of meretricious society! The reason is, they contract the habits and manners of the men with whom they cohabit, and soon become unfit for cohabitation with those of a better grade. The same rule prevents prostitutes from de-

generating or mixing with a class inferior to those with whom they have been, for some time, associated.

We pass over a number of short sections on the classes and distinctions of prostitutes, in order to approach subjects that bear more directly on our own science—namely, physical and physiological considerations.

Chap. III.—Physiological Considerations.

Corpulency. The embonpoint and brilliant health of a great portion of prostitutes strike the observer with surprize, when he sees them collected in masses at any public place. The exceptions, however, are numerous, and we observe a certain sprinkling of individuals meagre, or even emaciated. Those who live constantly among these unfortunates, and have them always under their eyes, remark that this corpulency seldom commences till after the age of 25 or 30 years. It is rarely seen among the young, or those who have been but a short time on the town. Many people, including physicians, have attributed this corpulency to the frequent use of mercury—the fact being certain that people generally become fleshy and healthy after a course of that medicine. But the physicians of dispensaries, prisons, and hospitals deny this position, averring that they see great numbers of prostitutes become embonpoint, who have not had any venereal disease for years previously. These and our author attribute the phenomenon to inactivity of life, rich food, and frequent use of the warm-bath. Prostitutes are almost always eating and drinking—lie in bed till ten or eleven o'clock in the day. The meagre and emaciated exceptions may be accounted for by poverty and hunger—or constitutional dispositions.

Peculiar Alteration of the Voice. We frequently observe prostitutes who are most beautiful in face and figure—elegant in their manners, and even refined in their tastes—in short, who seem the beau ideal of Venus herself—till they open their mouths—when, instead of musical tones and silver sounds, they utter such hoarse and discordant intonations as crucify the ears of the listeners! This vox rauca occurs about the age of 25 years—and is very general, though it is more common amongst the lower than the higher orders of the sisterhood—amongst those who linger about the doors of cabarets—who often get drunk, and then indulge in loud vociferations. The true causes may be inferred from these observations, namely, the application of cold and damp, when lightly clothed—intemperance—and great exertion of the voice. Some causes have been assigned, which are either fanciful or revolting, and which we pass over. This vox rauca has been on the decline in Paris since the police regulations have become more strict.

Two sections are devoted to the colour of the hair, eyes, and eye-brows of prostitutes—and also to the stature; but we do not deem it necessary to notice them here.

State of the Genital Organs. An immense experience in the examination of prostitutes has made our author very doubtful and timid as to the proofs of virginity, and also of defloration. He give a curious history of two young girls who were insulted in the street by some young men, and reproached with prostitution. They brought their accusers before the magistrate, and as the young men persisted in the charge, they offered to submit

to an examination as to their virginity. A most able physician undertook the investigation. After a most careful examination, he deposed that, in respect to one of the girls he could not determine whether she was or was not a virgin. As to the other, he suspected that she was not a virgin; but he could not swear to it! It was afterwards ascertained that they were common girls of the town, and that one of them had been twice, or thrice in hospital for syphilis!

This circumstance made a deep impression on our author at the time, and he lost no opportunity afterwards of investigating the subject. As we before hinted, the more he sought to ascertain the marks of defloration and the proofs of virginity, the more difficult he found the inquiry, and the more diffident he became. In fact, he acknowledges that, on the verbal declarations of young girls, he could often depend far more than on actual inspection of the genital organs. However, our author set to work a great number of physicians and surgeons, who had extensive opportunities of examining the organs of generation in prostitutes, and the result is as follows:—The genital parts do not present any particular alteration or appearance in these females, different from married and modest women. The constant employment of the speculum, of late years, has rendered the enquiry more positive in its results. It was frequently found that young girls, who had very recently become prostitutes, had vaginas as large as women who had borne several children—and, on the other hand, they often examined women, who had been 12 or 15 years on the town, and who evinced signs of premature decrepitude, and yet where the vagina and other parts of the genitals presented nothing at all remarkable. They examined a woman, aged 51 years, at the Prison of Madelonnettes, who had been on the town since the age of 15, and yet the genital organs might have passed for those of a maid just turned of eighteen years.

These facts, which have been accumulated and verified on the largest scale, present important subjects for reflection to the medico-legal inquirer. Works on medical jurisprudence gives us such minute rules for ascertaining the fact of a rape having been committed, that nothing seems more easy than to prove the truth or falsehood of the indictment. Yet physicians and surgeons of the most unbounded experience, and who are in the habit of daily making personal examinations of females, are so bewildered with doubt, that they hardly ever give a positive opinion on the subjects of violation or virginity. When we consider how often these decisions are left to a jury of MATRONS, we may well shudder at the results!

M. Jacquemin has discovered a new sign of pregnancy by the examination of prostitutes. It is a deep violet tint, sometimes like the lees of wine, which the whole mucous membrane of the vagina presents, when utero-gestation is going on. This sign has never failed him, and he relies on it with the most implicit confidence. This chapter concludes with some observations on the state of the clitoris, the anus, and the function of menstruation. Nothing very decisive, however, can be concluded from examination on these points.

We have brought our analysis to the end of the first half of the first volume. In our next Number, we shall give a long article from the same work, which is one of the most curious and important that has issued from the press for some years.

Observations on Rheumatism. By Mr. *Malcolmson.*

In a volume of essays lately published by Mr. M. at the expense of the Madras Government, we find some very curious observations on rheumatism, as it exists amongst the natives, and also the Europeans, in our oriental possessions. It appears that, excepting fever, no disease is more prevalent among sepoys than rheumatism; and that, though seldom fatal, it causes the loss of more men to the service than all other diseases put together. As it is often confounded with Beriberi (a dangerous and frequently mortal malady), it is probably much more fatal than is supposed. It rarely presents itself in the acute form among the natives—and then does not differ from the same complaint in Europe.

"But these acute and subacute forms of rheumatism are of little practical importance compared to the common chronic affection, which, whether succeeding the acute, or arising without evident cause, is a disease of great obstinacy, little under the influence of medicine, and lays the foundation of numerous constitutional ailments. When it attacks a healthy person, it may at first be confined to a single joint, which is followed by the affection of others, generally without any relief to the one first suffering. The pain is not generally very acute nor always worse at night, and often is little more than an aching and weakness of the joint." 7.

The parts most frequently affected are in the following order—the knees, ankles, heels, elbows, wrists, hips, shoulders, back and chest. The pain in the knees is always much complained of, and is generally referred to the whole joint—sometimes to one condyle. There is no heat or swelling—and the patient is often suspected of skulking and sent on duty, till swelling takes place, with general bad health, when the mistake is discovered. The heels suffer severely, the pain extending up the tendo Achillis, with swelling about its insertion.

"The soles of the feet, the calves of the legs or flesh of the thighs suffer more rarely than the loins or hips. The roots of the toes, the tarsal ligaments, the back of the hands and joints of the fingers are frequently swollen and painful; and the muscular parts of the back, the sides of the chest, the ribs and the sternum often become painful, tender, and swell. And in many rheumatic cases, where the patients were ascertained to have had no venereal complaint for years, nor to have taken mercury, the shin bones have suffered from pain, and even from swelling. The tissues, then, that appear most generally involved in the disease are the ligamentous and tendinous, the periosteum, and more rarely the muscular, and we shall see reason to believe that many others are occasionally engaged." 8.

In a large proportion of protracted cases, the patient loses flesh and strength, and becomes cachectic. European treatment is rarely applicable. Many get well by rest and frictions. This last measure is necessary in all forms of the disease, and is the chief means of cure, with the exception of mercury, which is, "beyond comparison, the best remedy in Indian rheumatism."

Burning of the Feet.

This curious complaint has only come into notice since the Burmese war,

and very little has been written on the subject. It seems that an ignorance of this disease has led to the sacrifice of many lives, and entailed great expense on the Government.

"In a disease like this, of which nothing was known, and which had no sensible signs by which it could be recognised; when the patient was not emaciated, as often happened in elderly men of a naturally corpulent habit, and in slight cases amongst the young, he was suspected of malingering to avoid harassing duties or to procure leave to return to his own country; an opinion which would naturally lead to the greatest practical cruelty, in refusing rest in hospital, leave of absence and change of climate to men, to whom they afforded the only chance of recovery." 34.

Melancholy instances of this kind have come to our author's knowledge, where men have died in making exertions beyond their strength, while being treated as malingerers!! This led to want of confidence on the part of the natives, and even the Europeans, in the medical officers. Our author does not consider this disease as a sequela of Indian rheumatism, as it is unknown in places where the latter complaint is most prevalent. The following case and description of the disease will give the reader some idea of this singular malady.

Case. "A paria prisoner, æt. 24, admitted 1st Jan. came to hospital yesterday complaining of sense of numbness of his body and a burning of his feet, with costive bowels. Pulse at that time frequent and skin was slightly warm. Had half a drachm of compound powder of jalap which operated four times; says to day that the numbness is better, but the burning of the feet, and he now adds of the abdomen, is no better; pulse 120, not very strong, skin is natural, tongue pretty clean; in walking moves steadily enough, except that he does not place his feet at once firmly on the ground, and he complains of pain in the calves of the legs. Has been ill 3 days. To take treeak farook pills and a diet of meat and wheat cakes. 2d. Pulse to day 112, skin natural; says he feels better of the heat in his feet and abdomen, and that the numbness is quite gone, bowels twice opened. 3d. Pulse 106, skin natural, one stool; says he has no complaint. 4th. Pulse 96, no heat or numbness. 7th. Pulse 84; no complaint. Omitt. med. 9th. Discharged.

This case was evidently allied to beriberi, which was prevailing at the time, and of which burning in the feet is an occasional symptom. It does not, however, often occur in that disease, and is found to affect the soles and the calves of the legs, the back of each side of the spine and occasionally the flesh of the legs, in all of which a connexion can be traced with other affections of the nerves of the part. The symptom is not confined to any class of cases, being observed in recent and slight examples, and in old and hopeless ones, but in which I have in general, found the numbness not very great, and to be combined with other signs of slightly obstructed nervous power. Both, then, appear to depend on an affection of the nerves, and their occurring together would suggest that they are modifications of the same disease, which is further supported, by the fatal cases exhibiting many of the graver symptoms of beriberi. The evidence of an occasional correspondence in some of the symptoms, and even of the appearances on dissection, are however by no means sufficient to identify two diseases, as these must often run into each other, if similar parts are affected. The general history of the complaints, therefore, affords the only satisfactory evidence, on which I am enabled to communicate the result of extensive observation, in the most favourable circumstances which have ever presented themselves. On the return of the troops from Ava in the middle of 1826, the corps that were sent to the northern division were in general suffering from 'burning of the feet,'

but no beriberi shewed itself till some months after, when the other complaint had almost entirely disappeared; and after this, and the disappearance of the sloughing ulcers and bowel-complaints connected with depraved habit which prevailed with them, these regiments were very healthy, until the period of residence and season disposed them to the endemic of the circars. It was also observed, that men with burning of the feet were not peculiarly liable to beriberi, which attacked indiscriminately all new comers, whether from Rangoon or from places in India, although it was true that those men whose constitutions were impaired by this or other disease on foreign service, were rather more liable both to beriberi and fever. This observation was not confined to any particular corps, but was equally true of all those suffering from 'burning of the feet,' which entered the districts where beriberi prevailed, and also when stationed in towns where other troops were losing men from it. It was perhaps more instructively exhibited in the 4th extra regiment at Ellore than in any other. This corps was raised in January, 1826, and was composed of recruits and of men returned sick from Rangoon, who were transferred to it. Amongst the latter, burning of the feet prevailed, but did not attack any of the other men, and before beriberi made its appearance, which did not happen till the end of the year, when the subjects of it had been exposed to the influence of the place for many months, the former disease had disappeared, except in a few obstinate cases, none of which ran into beriberi. The first instances of beriberi were not of a decided character. A man suffering from fever having lost the use of his limbs in September, and in October a sickly boy had œdema of the limbs and face with swelled belly, but without any affection of the nerves. These facts, observed as they were on the large scale in both diseases, afforded much better evidence of the pathological difference of these complaints, than can be derived from a similarity in the latter stages, with some resemblance in the appearances on dissection."

"'Burning of the feet,' which is the designation usually applied by Europeans, from the distressing sensation being for the most part confined to the soles, is merely a translation of the ordinary expression of a native soldier on presenting himself at the hospital, and has no pretensions to accuracy, but it deserves to be retained, as marking the distinction and importance of the affection, till a more accurate knowledge is acquired of its nature. The burning frequently extends over the surface of the lower extremities, which are affected with severe pains, in many instances confined to the fleshy parts, especially the soles of the feet and calves, as in other cases of affection of the nerves at their origin, and the limbs sooner or later emaciate. The hands have partaken of the morbid state, and in a few cases the burning has extended to the whole body and even to the face. The parts are dry and do not feel hot to the touch, but I made no observations with the thermometer; and on this subject, and the distribution of the morbid sensations, and their relations to other symptoms often present, no accurate observations have been made. In some cases the burning is stated to be worse at night, in which it partakes of the nature of those more common sensations which arise from slight nervous derangements common in dyspepsy, menstrual irregularity, and convalescence from severe disease. Nor is there any reason to doubt, that nervous irritability from deranged capillary circulation was occasionally a cause of the morbid sensation in Ava, as it unquestionably was of the analogous complaint in the prisoner, in whom it was removed by the diaphoretic action of Dover's powder, which, conjoined with tonics, Good states to be the proper remedy for sensations of this kind depending on irritable habit.*

* "A gentleman of robust habit, but subject to slight disorder of the bowels, was much distressed with painful scalding sensations in the soles and palms, coming on in the evening and lasting most of the night. After some time, the

Besides the pains in the lower extremities and emaciation, symptoms of a generally depraved habit were present; and in the worst cases extensive organic disease. The skin was dry and harsh, often scaly or covered with itch, the patient was harassed by irregular attacks of fever; he felt weak and was exhausted on slight exertion, to which he often had a great aversion. The tongue was usually pale, swollen, smooth or furred, and only red when the intestinal mucous membrane was excited. The gums were observed by several gentlemen to be swollen and soft, but the symptom was neither common nor remarkable in degree. Night blindness was not of unfrequent occurrence as in some forms of scurvy. Cough was more common than in any other complaint to which the natives are liable, and there was distressing dyspnœa in the advanced cases. The pulse was little altered in the early stages, and, when uninfluenced by the organic affections, was small, irritable, and easily excited by exertion or irritation of any kind. The digestion was in almost every instance impaired; the appetite was weak and irregular, and the most wholesome food caused uneasiness at stomach, puffy belly or pain. The abdomen was often tympanitic and tender to the touch; diarrhœas, dysentery, pain in the course of the colon or around the umbilicus frequently occurred, and increased the emaciation or destroyed the patient. In some instances, however, both the appetite, digestion, and evacuations were natural. In the worst cases, stiffness and numbness of the lower extremities were complained of. Dropsical swellings of the legs were not uncommon, and usually the result of debility alone, disappearing on the patient being enabled to keep in the recumbent posture, but also in many instances the effect of organic changes, and complicated with effusion into the cavities. Although in most cases where 'burning of the feet' was complained of, careful enquiry could detect signs of general disorder in the tongue, skin or abdomen, a few had no other symptom, and yet the disorder was real, and in time caused emaciation and bad health. In some all the general symptoms and even pain in the calves and soles of feet, numbness, &c. have been present without burning; and in others, the pains in the limbs have left the patient, and yet the burning was unrelieved many months after the patient's general health was restored, by his return to his own country. Nor is this surprising, when the different kinds of morbid sensations induced by even local disease of nerves are considered. Neither will the appearances on dissection throw any *certain* light on the cause of the sensation, the same morbid changes having taken place where this symptom was wanting as where it was present; but they point to the lower part of the spine as the seat of the local disorder, and are of the greatest use in leading us to a correct estimate of the formidable nature of symptoms, which end in extensive alterations in the structure of the viscera of all the cavities. It is of great importance, however, to observe, that these alterations are not essential to the disease, as a very large proportion of the patients, if placed in favorable circumstances, may be restored to health in a moderate period of time." 43.

Of the treatment little can be said. The essential object is change of climate, and a return to the usual habits of life and food in the sepoy, with exemption from hard duty.

RHEUMATISM OF EUROPEANS IN INDIA.

This has been almost entirely neglected by tropical writers. It has al-

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parts became tender to the touch, so that walking was painful, and the skin exhibited spots of a reddish tint which were slightly elevated. He was dyspeptic and the skin was usually dry. He derived temporary benefit from bathing the feet in hot water, and from blue-pill and James's powder; but he owed his recovery to active exercise, by which a free perspiration was excited."

ready been observed that rheumatic fever is rare in India, and requires, when it occurs, less active treatment than in colder climes. The tartrite of antimony has proved very serviceable in these cases.

But the chronic rheumatism of the East is a more local affection than in the West, where it is often dependent on, or connected with, constitutional disorder. In the East, it assimilates with neuralgia, and is a very frequent sequela of intermittents. In short, there is little doubt that, in many cases, it is the product of malaria, affecting the whole constitution or a part of it. But, it may be asked, how *a part?* Our answer is, that we have strong suspicion that the exposure of a limb, for example, to malarious exhalations, especially in the night, will induce rheumatism, independently of cold or moisture. When these last accompany malaria, the cause is of course augmented in intensity.

"In feverish districts rheumatism is very prevalent, partly from the moisture and variable climate being exciting causes of both diseases, and partly from the frequent origin of rheumatism in long-continued attacks of intermittent and remittent fever." 58.

Our author thinks that the Indian rheumatism is often caused by the abuse of mercury—which, if used with prudence, is the best remedy.

"Notwitstanding my conviction of the frequency of mercurial rheumatism, I can assert on the ground of extensive experience, that mercury in small doses and judicious combination is the most generally effectual remedy in all forms of rheumatism in Europeans in India; and the remarks on its employment in natives apply without any material modification to Europeans. It is especially necessary to give it in small doses, for very little will affect the mouth, and as there is danger of relapse being caused by the peculiar effect of mercury, it should never be given more frequently or continued longer than is absolutely necessary. This caution is the more necessary, as it is stated in some recent works, that mercury affects the system with difficulty in acute rheumatism; and in other cases, ten grains of calomel every night, or five grains two or three times a day are recommended, which is far more than I consider safe. Mr. Wyllie, formerly cantonment-surgeon at Nagpore, who was averse to the free employment of calomel in other diseases, assured me, that it was the only agent which had any power over the severe rheumatism of that place." 68.

Mr. Malcolmson adverts to another cause of pains in external parts—namely, disorder of the hepatic system.

"In some severe cases of hepatitis the soreness of the skin, bones, and muscles extends over the whole right side of the chest, and gives to the disease much of the appearance of severe pleuritic inflammation, or rheumatism of the chest. In such circumstances, after free evacuations the pain and ordinary symptoms of hepatitis become more distinct, and the diffused pain and tenderness leave the patient. I have found this external tenderness to the slightest touch the *only early general symptom of fatal thoracic disease;* it is therefore necessary to be on our guard in such cases, and to observe their progress with more closeness, than the observations of the professor would lead us to think necessary." 76.

We must here conclude our short notice of the work, for which, by the way, we have to return our thanks to the Medical Board of Madras, who were kind enough to present it to us.

ON THE REMEDIAL AGENCY OF THE AIR-PUMP. By *Sir James Murray*, M.D.

WE have often thought that dry-cupping was not so much employed as it ought to be. If atmospheric pressure could be taken off one part of the body without adding to the pressure on some other part, there can be no doubt the air-pump would be a most powerful remedial agent. But this cannot be done, though Sir James Murray seems to have obviated the difficulty of the attempt, as far as ingenuity could do so.

"The consideration of these difficulties led me to contrive a metallic case for embracing the whole hand, with an adaption to render it air-tight, either above or below the elbow, a pipe to connect it with the exhausting syringe, and another to attach with a mercurial gauge, which should regulate the degree of vacuum. When the rarefaction is properly effected, it can be continued for any length of time which may be considered requisite for the protection of the patient from the effects of poisoned wounds, as well as the bites of rabid animals, and similar sources of deleterious matter." 35.

The apparatus for taking off atmospheric pressure from the general surface of the body—at least from the major part of it—is thus described.

"For the purpose of insulating a patient's body from the external air, a small oval bath, of tin, zinc, or copper, is employed; its lip is furnished with a groove to contain luting, for connecting the lid or cover.

In this lid is an aperture to pass over the patient's head, and around this opening is fitted a margin of air-tight cloth, which applies itself so as to embrace the top of the chest and back of the neck. The patient sits upon a seat, easily varied to a regular height, and his head is unconfined, the body and limbs only being inclosed. When the bath is thus adjusted, it is to be partially rarefied, either by the condensation of a little hot air or steam, or by a few strokes of the suction-pump.

When the air of the bath is exhausted, to the extent of two inches, upon the mercurial gauge, it indicates the removal of *one hundred and forty-four pounds* from every square foot of the patient's surface, or one pound from every square inch.

Rarefaction to this degree is the utmost at any time required, and does not injuriously interfere with those great hydraulic laws, which modify either the general or pulmonary circulation. But, on the other hand, when the principle is applied *topically* to a part of the trunk, or to the limbs, as no interference with respiration can then occur, *two or three pounds* of pressure may be drawn from every square inch, but there is seldom occasion to proceed to that extent. To draw away even a fifteenth part of the atmospheric gravity will, I think, be found a therapeutic agent, abundantly powerful for any useful purpose.

It was my intention to give drawings of the various adaptations, but as it is obvious that any misconception might lead to injurious results, I have thought it safer to direct an able artist, Mr. Hodges of Westmorland-street, to make the apparatus, supply proper directions, and send a careful person conversant with its mechanism to apply it. He has also arranged a similar facility, to be afforded by Mr. Hart, 25, Hunter-street, Hanover-square, London, and any other place that may require it.

I have further requested him to communicate to any medical gentleman, the most free and explicit explanations respecting the mechanism and applications of the general or local baths for RAREFACTION." 43.

The author has employed local rarefaction in several cases, and suggests it and general rarefaction in many complaints. We shall glance at some of these.

Case 1. A man had laboured for several months under excruciating pain in the right side of the head, for which various remedies were given without relief. One leg and thigh were enclosed in the exhausting air-bath for an hour and a half, by which the limb was enormously swelled, and the capillaries highly injected. The head-ache was relieved.

Case 2. A painter had, during seven years, complained of pains and weakness of the arms and wrists, which incapacitated him for his work. The right arm was enclosed in a tin case, and suction effected. The fingers became gradually hot, then the wrist, and lastly the elbow. When the exhaustion had continued half an hour, he felt the perspiration copious, the fingers as if pulled out and expanded, and the hand enlarged, so as to fill the case. In a few days he was able to work.

Rarefaction of the air, when a limb is severely burnt, brings back, our author remarks, a supply of blood and nervous energy, when the circulation becomes languid, and sphacelation is threatened. In partial paralysis, he thinks, we may give (where there is coldness and defective nervous energy) an impulse to the nerves through the process of suction. In respect to the limbs it is a species of dry-cupping, for new purposes and on a new scale.

"The trunk may be compared to a hollow tube, or case, filled by our vital organs: abstracting a part of the surrounding compression from the exterior of the body, permits its easier expansion, dilates its interior, and allows the great viscera to unload themselves of the surcharge of fluids, frequently detained in their vessels and spongy membranes.

When we reflect upon the laws of hydraulics, and consider that the brain and its blood are incompressible in their air-tight case, it will at once be admitted, how important it is in practice, to adopt means in addition to those usually had recourse to, capable of abating an untoward impetus of the circulation to the brain." 31.

With this extract we must close our notice of Sir James's pamphlet. We think the subject deserves further investigation.

The Transactions of the Provincial Medical and Surgical Association. Volume IV. Octavo, pp. 578. 1836.

[Concluded from the last Number.]

The Provincial Society's volume arrived too late in the quarter to enable us to complete our notice of its contents in the last Number of this Journal. We gave a general sketch of their character, and pointed out those articles which were, and which were not adapted for analysis or criticism. Before we enter on our proper business, and consider separately each remaining pa-

per, we would offer one or two brief remarks on the constitution of the volume.

It is too bulky; that is certain. None but the members of the Association would venture to purchase or peruse such a tome. Even the members of the Association itself must be actuated more by an esprit du corps, or by a positive engagement, than by their better judgment, if they deliberately expend their money or their time in wading through so many unprofitable pages. We will be bold enough to prophecy, that many a slumber will crown the tired country surgeon, as, dozing through whole prairies of topography, he sinks exhausted and bewildered in the midst of its monotonous details.

Addresses and anniversary proceedings possess but a local and a temporary interest. Animated by conviviality, perhaps by wine, the orator is received with favour and applause, and even were a critical examination possible, it would be out of place, injurious, and unkind. But such indulgence must die with the occasion, and the public, who did not partake of the dinner, care very little to hear the grace. At the festive board, the language of compliment is customary and pardonable. But when the harmless adulation is seriously offered to the attention of the world, an air of ridicule is necessarily thrown over both the proceedings and the actors.

Much of the present volume is not what a scientific society should publish, but matter only for a country newspaper. Ephemeral in its character, an ephemeral vehicle is best adapted for it, and as a speech is generally read with most avidity by the speaker or his more immediate friends, every reasonable object would be gained by its publication in the newspaper.

We would recommend the council of the Association to exercise a little gentle violence in compressing their succeeding volume. The addresses should be received in it with great precaution, or altogether rejected. The topographical surveys may be usefully abridged. Each article at present would appear to be as large as the place to which it relates, and the authors would seem to have imitated the stratagem of Dido, who cut out her hide with such ingenious minuteness, that she circumscribed within it the City of Carthage.* Perhaps the council would also do well to discourage papers of a speculative character. Such papers are usually indifferent, for although a man of brilliant talents may give them a high interest, if not a positive value, the generality of authors confer upon them neither. On the whole, we would direct the attention of the council to the plan pursued by that of the Medico-Chirurgical Society. Their Transactions offer an useful model to their provincial brethren.

While we feel disposed to object to part of what the Provincial Association have inserted, we must also express regret for what they have omitted. The exact taste of the day has created a demand for authentic facts. The most authentic in medicine are those of a clinical character—the cases which occur publicly in the hospital or the infirmary. The provincial hospitals are numerous, well organized, and well officered. The Transactions should be made the vehicle of diffusing a knowledge of the valuable facts that must

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* There is an article of upwards of a hundred pages on the topography of the Land's-End. It is the second on the same subject, and we are promised a third. It is fortunate that it is the *Land's-end* at which the author has arrived.

constantly be noticed in them. Well arranged and systematic hospital reports should form a staple article in a volume like the present, and would materially enhance its utility and value. There are indeed some clinical reports in this, but they are not by any means sufficiently numerous.

Such are the observations we would offer. They are made with the view of raising the character and enlarging the utility of the Association's Transactions. We are anxious to forward the real interests of medical science, and perhaps there are no more gratifying, nor indeed effectual means, than by elevating the attainments, and consequently the station of provincial medical men. The increase of education, and Associations, such as are formed and forming, will, we feel convinced, be of essential benefit to the profession; education teaching them to think—Associations enabling them to act.

The first paper which now comes before us is one from Mr. Chavasse, a surgeon of Birmingham, on—

Some of the injurious Effects of the Secale Cornutum.

The object of Mr. Chavasse is to shew, that the secale cornutum, although an useful and important medicine, is calculated, when injudiciously exhibited, to destroy the vitality of the fœtus, or to occasion hour-glass contraction of the uterus, and retention of the placenta. His observations are founded on the experience of practitioners of his acquaintance, as well as on his own, and apply more particularly to first labours. Although he has seen, or has been made acquainted with the particulars of several cases, he relates those of only two.

Case 1. Mrs. R. æt. 29, a delicate woman of nervous irritable temperament, was taken in labour at the full period of utero-gestation. Nothing occurred worthy of observation till she had been in labour between eight and nine hours, when the pains became very frequent, but inefficient. The os uteri was dilated to the extent of a five-shilling-piece. With a view to control this irritable state of the uterus, a warm emollient injection was administered (though the bowels had been previously unloaded), and a full dose of opium was given. These measures were productive of no benefit, and, in an hour afterwards, Mr. C. found her much exhausted, and the labour little advanced. Mild stimulants were had recourse to, but the patient became very faint after each pain. At this period the child was lively, the os uteri still about the size of a crown-piece, its edges thinner, the lochial discharge free, and the external parts disposed to yield. Thinking that the ergot would overcome the irregular and inefficient action of the uterus, Mr. C. gave the patient two scruples of the recently powdered substance in a wine-glass full of water. In the course of about twenty minutes, she began to complain of great pain and uneasiness in the hypogastric region. The pains increased in frequency and force, until they became continuous and violent, lasting fully half an hour, when they ceased altogether, and the patient grew restless and anxious.

"From this period the motions of the child were no longer perceptible; and on examination I found the labour but little advanced. Mrs. R. being now free

from pain and much exhausted, fell asleep, and full two hours elapsed before there was any return of uterine action. An increased flow of lochial discharge was soon followed by some sharp bearing-down pains, and soon afterwards by the expulsion of a fine still-born child. Firm and steady pressure was made over the region of the uterus, but no attempt was made on the part of the womb to dislodge the placenta. As there was no hæmorrhage I waited nearly an hour, but still the uterus exhibited no disposition to throw off its contents, and my patient's, as well as my own anxiety being well awake, I introduced my hand, and immediately detected well-marked hour-glass contraction; the uterus being divided into two chambers, and the placenta lodged in the upper. Finding the stricture very firm, I withdrew my hand, and giving her a full dose of laudanum, waited ten minutes, and again introduced it. By steady pressure, with the fingers reduced to a conical shape, I soon overcame the annular stricture, and brought the placenta away in my hand. The uterus immediately contracted firmly, and nothing occurred to interrupt the convalescence of my patient." 309.

Case 2. At 5, a. m. of the 5th of June, 1830, Mrs. H. æt. 36, a delicate woman, was taken, at the full period, with slight uterine pains, and other indications of approaching labour.

"When I saw her," says our author, "at twelve o'clock, she was progressing slowly but satisfactorily, and the os uteri was opened to about the circumference of a shilling. I was called to her at six p. m., the pains being sharper, and the os uteri the size of a half-crown. The presentation was natural. The pains were slow, but regular, till twelve o'clock, when, increasing in frequency till two o'clock, the liquor amnii escaped, and there was a suspension of pain for three-quarters of an hour: the child being lively and troublesome. The circumference of the os uteri was now equal to that of a crown-piece, and its edges, though firm, yielded to pressure. I administered two scruples of powdered ergot. In twenty minutes it began to manifest its power, by producing pain in the lower part of the abdomen and back, which soon became severe, and continued without intermission for full half an hour, when she became quite easy. During this time there was but little bearing-down sensation, and I found, on examination, that neither the os uteri nor perineum had undergone any material change. She continued free from pain for nearly an hour, enjoying, in the interval, a little refreshing sleep. She was awaked by a return of the pains, which soon becoming severe and sensibly effective, the perineum was speedily on the stretch, and in less than half an hour my patient was delivered of a fine still-born child. After waiting full half an hour, the uterus in the interim shewing no disposition to throw off its contents, (although the belly and loins had been well rubbed, and the womb itself forcibly grasped from time to time with the hand, but without the effect of producing satisfactory contraction of the organ) my patient began to flood considerably. Unable to trace the insertion of the funis into the placental mass, I suspected there was hour-glass contraction, and on introducing my hand my suspicions were confirmed. I immediately withdrew it, gave her fifty drops of tincture of opium, and after waiting half an hour again passed my hand into the cavity of the uterus. The constriction was soon overcome; and as there was no adhesion, the after-birth was easily brought away. My patient ultimately did well, but no conception has since taken place." 311.

Mr. Chavasse makes several observations, and cites the expressed opinions of three of his medical friends, in order to shew that such consequences as have been described in the preceding cases, not uncommonly follow the exhibition of the ergot. It is unnecessary for us to dwell upon the subject, for the facts speak of themselves. There can be little question that so

powerful an agent should be given with much caution, and that, in first labours more particularly, the surgeon should pause before he stimulates the uterus to forcible contraction. The relation of these facts will tend to put other practitioners upon their guard.

Mr. Chavasse cites the recommendations and conclusions of Dr. Dewees, with reference to the cases requiring the exhibition of the ergot. We may extract them.

"1. It should never be given before the membranes are ruptured, the os uteri dilated, and the external parts disposed to yield.

2. But should the pains flag from any cause, it may be given, provided the labour be natural, according to the acceptation of the term natural labour—that is, when the head is well situated, the breech, the feet, or the knees present. For independently of any accident which may complicate the labour, it is desirable to hasten it sometimes, for the safety of the child, when the natural powers are incompetent to this end.

3. And if the labour be accompanied by any such accident as flooding, convulsion, syncope, &c. it may be sometimes employed to great advantage, provided rules 1 and 2 are not violated.

4. It may be used often with much advantage in every kind of premature labour; and at the full time, when the placenta is not thrown off, and the uterus is in a state of atony.

5. When floodings take place after the rupture of the membranes, the os uteri well dilated, the pains feeble, but the child well situated.

6. When the head of the child has been left in the uterus by being separated from its body.

7. When the uterus is painfully distended by coagula." 318.

Mr. Chavasse, however, is inclined to differ from Dr. Dewees, in the 4th rule that he lays down. His own observation leads him to conclude that the ergot exercises no power over the uterus, until the full term of pregnancy is accomplished, or till the muscular fibres of the organ have been excited to action by the pains of labour. He has tried it as an emmenagogue, in apparently appropriate cases, without benefit, and in two instances where it was given, in order to induce premature labour, it failed. But we may observe that some discrepancy of opinion exists on the power of the ergot in these cases, and there seems some ground for believing that it is far from absolutely inefficacious in producing premature contraction of the uterus.

Mr. Chavasse appends some observations on the efficacy of the ergot in uterine hæmorrhage occurring during labour. We will notice them as briefly as possible.

Mrs. Adkins, æt. 38, of a full plethoric habit, and the mother of seven children, was seized, at the full period of pregnancy, with slight labour-pains, followed by profuse hæmorrhage. When Mr. C. arrived, she was much exhausted; the pains had nearly disappeared; the os uteri was larger than a half-crown-piece, and dilatable, and on one side a portion of protruding placenta could be distinguished. Mr. C. ruptured the membranes, and, as the presentation was natural, gave her two scruples of the ergot in a wine-glassful of brandy and water. No more bleeding occurred, and in thirty minutes she was safely delivered of a child so putrid that it had evidently been dead for some days before the labour commenced.

The next case was that of a delicate woman, the mother of six children.

After being busily engaged till one o'clock in the morning, she retired to bed, and at two o'clock was awoke by symptoms of slight labour, and a most profuse hæmorrhage. When Mr. C. saw her, he found a considerable portion of the placenta protruding between the fœtal head and the os uteri, which was dilated to the size of a five-shilling-piece. The pulse was extremely feeble, the extremities were cold, and the patient altogether much exhausted. Mr. C. gave a drachm of the powder in some brandy and water, and the membranes, which were unusually thick, were then ruptured. In the course of half an hour, there was neither pain nor hæmorrhage. Hot brandy and water were then given, the pains returned, a still-born child came away, and in fifteen minutes the placenta followed.

Passing over another case, we will conclude with one intended to exhibit the good effects of cold water injected into the uterus.

Case. Mrs. B. a thin phlegmatic woman, æt. 28, was delivered of her first child after a natural labour of six hours' duration. The placenta came away, without assistance, in twenty minutes afterwards, and a tremendous hæmorrhage succeeded. Mr. C. desired the nurse to make pressure on the hypogastrium, while he introduced his hand into the cavity of the womb, to induce it to contract. It was loose and flaccid, and the attempt was ineffectual. The patient was deprived of animation. The ergot and brandy were administered in vain. The apparatus for the performance of transfusion was sent for, and was on the point of being used, when, having a half-pint syringe at hand, Mr. C. injected eight ounces of cold water into the cavity of the uterus. The effect was instantaneous. The organ instantly and powerfully contracted, reaction succeeded, and the patient was saved.

II. EXTENSIVE DISEASE OF THE FEMALE PUDENDUM. By *T. Brayne*, Esq. Surgeon, Banbury.

Mrs. S. æt. 39, when about 27 years of age, first observed a pendulous substance, of the size of a small nut, growing near the upper part of the left labium pudendi. In two or three years it had attained the size of a goose's egg, when it became more painful and grew faster. In the course of five or six years, it had attained nearly its maximum of size, and was accompanied by frequent, severe, and lancinating pains. In ten years from its commencement, it became deeply ulcerated in two places, and from one of them it twice bled profusely. The second time was a few months prior to the present report, and Mr. Brayne was then summoned as the patient was thought to be dying. Nothing had been done for the complaint, with the exception of the patient having herself applied a ligature, when it was small. Mr. Brayne's description of the present state of the tumor is as follows:—

"On examination, the tumour is found to grow by a neck, which increases to about five inches in circumference, and seems to be composed of both nymphæ, continuous at the upper part, and doubled together, for on raising the tumour against the abdomen and separating this duplicature, in its concavity is seen the orifice of the urethra in its natural situation, but the clitoris is undistinguishable. The tumour is flaccid and rather soft, and somewhat of a pyriform shape, with

the largest end upwards. It measures fourteen inches and a quarter in circumference at its widest part, and ten a half in length, exclusive of the neck by which it grows, the lowest part of it reaching down, when hanging and unsupported, nearly to the knees. The general aspect of its surface is rough and tuberculated, in some parts being fissured and rugous, in others composed of prominent and clustered lobules of various sizes and shapes. The rugous, and apparently the oldest, portions are of a very dark brown colour, speckled by patches of cuticle of an intense black. The smaller tubercles are of a pale brown, while the larger and more distinctly lobulated portions are of a light red and more vascular appearance, and some are almost semi-transparent. Here and there are deep excavations, where ulcerations have existed and healed, one of which is seen, smooth and deep, near the centre of the mass. The ulcers that exist at present are smaller, and situated upon the posterior part of the tumour. Some of these have a yellow colour, like unhealthy granulations, from which there is constantly discharged an immense quantity of an offensive, irritating ichor, which is often tinged with blood. The whole skin of this mass possesses a considerable degree of sensitiveness, and large venous trunks ramify on its neck, and are soon lost in the body of the tumour. Ulceration of these vessels probably furnished the profuse discharge of blood that I witnessed, which was evidently venous, and amounted at least to four pints. On weighing the tumour, with as much care as possible, to ensure accuracy, it was found to weigh (Feb. 18th, 1835) full eleven pounds.

The posterior parts of the labia, the perineum, and the skin surrounding the anus for several inches, are also in the same lobulated and tuberculous state. One small, hard, flat tumour projects beyond the rest, about an inch and a half in length, from the margin of the anus; another, of the size of a walnut, occupies the orificium vaginæ, and grows by a neck from the posterior surface of that canal. All these parts partake of the same general character of disease as the large tumour; but they are, for the most part, more solid and resisting, like ordinary scirrhus. Much lancinating pain is constantly experienced in them; and there is, also, frequently discharged from the anus, a considerable quantity of the same offensive matter as from the ulcerated portions of the larger tumour." 372.

Her constitution appears to be giving way. She is without appetite, has a quick pulse, and impeded respiration.

We extract this case, because we think that it enables us to make an observation that may be useful on another occasion. It is quite clear that nothing can be done by an operation here. The extension of the disease to the vagina, perinæum, anus, and neighbouring integument, puts the employment of the knife out of the question.

But, if we understand Mr. Brayne's description rightly, we do not agree with him in his opinion. He conceives that the disease is essentially malignant, and a species of carcinoma. We have seen several instances of, apparently, a similar morbid growth from the female pudendum, in an earlier stage than, unfortunately, this is now. The tumor had the same slow growth, the same lobulated appearance, the same disposition to ulcerated fissures, the same abundance of large veins ramifying in it. But then, we say, it was in an earlier stage and of lesser size. The tumor was removed by the knife with success. It did not re-appear in the part, nor did other organs become implicated. On dissection of the tumor, it was found to be a production, apparently hypertrophic, of the skin and the subcutaneous adipose and cellular tissues. We repeat, that we have seen the operation performed with success on several occasions, and in the latter part of last year, we re-

moved from the anterior commissure of the labia and the mons, a growth of this description ourselves.

We do not, therefore, believe that the tumor is malignant, in the sense of either originating in a constitutional taint, or, in general, of itself contaminating the system. If it is removed at a tolerably early period, that is, while its connexions and situation render it removeable, the surgeon need not be apprehensive respecting the result. A very wide difference this from the results of the operations for scirrhus and medullary sarcoma in their very earliest stages. But, when this tumor has lasted so long and spread so widely as in Mr. Brayne's patient, then it is not only locally beyond the reach of the knife, but probably it has assumed the malignant character, and other organs have become affected.

III. CASE OF NEURALGIA OF THE UTERUS DURING PREGNANCY. By *J. Holbrook*, M.D. Crickowell.

This is, in many respects, an interesting case. But it is long and the details are confused. The author does not appear to be much versed in that analytical method, which arranges and condenses the materials submitted to it. We shall endeavour to make it rather less involved than it is in its original form.

Case. On the 14th of March, 1835, Dr. Holbrook was summoned to Mrs. S. He found her labouring under symptoms closely resembling those of labour. The pains recurred every ten or fifteen minutes, and continued about ten minutes. They were felt in front, in the back, and extended down the hips. The pulse was quick, the skin was warm. These symptoms had appeared suddenly a few hours previously, accompanied by a considerable red "show." The patient had also been sick.

The history of the case was this. The lady had been, from a child, extremely delicate, and, since the age of puberty, had suffered from what were deemed frequent inflammatory attacks,* principally of the chest, for which she had been largely and repeatedly bled. Before her marriage, and afterwards, she had evinced a morbid sensibility in both the external and internal organs of generation; and had laboured under retention of urine, requiring the employment of the catheter, which, however, occasioned excessive pain. The medical practitioner who attended her at this time, makes the following statement:—

"Some time in 1830, before her marriage, Mrs. ——, after several inflammatory attacks, for which she had been largely and repeatedly bled, and when she was still confined to her bed, began to complain of great pain in the pelvic region, accompanied with leucorrhœa, particularly when the bowels were moved. This state was soon followed by spasms of the abdominal muscles, and severe

* It is probable that these "inflammatory attacks" were more of a nervous character than was supposed. It will appear in the sequel, that the patient laboured under those symptoms, which, for want of a better name, we call hysterical—symptoms which ape local inflammations with most deceptive closeness. But this is par parenthèse.

bearing down like the last stage of labour, occurring regularly once every twenty-four hours, and resisting every remedial measure, until strong opiate suppositories were had recourse to. The uterus was suspected to be in fault, but it was long before she would consent to an examination; and when that took place, the cervix of the organ was found to be in a high state of sensibility, the most gentle touch on examination producing excruciating pain, followed by syncope." 330.

When she married we are not informed, for the whole case is told in a rambling manner, the author speaking a good deal in lutestring. It appears, however, that in a short time after marriage she began to be affected with repeated attacks, threatening abortion, similar to that for which our author was summoned, and relieved by bleedings and opiate suppositories. And here we may observe that the bowels were habitually costive, and that opium could not be borne on the stomach in any shape, being always followed by severe vomiting, and general distress.

Thus she went on till the ninth month of her first pregnancy, in the first week of which she was brought to bed of a dead child, this being supposed to have perished about the end of the sixth month. This was in May. After it, she recovered her usual health, again became pregnant, and miscarried about the Christmas preceding the March in which our author first saw her.

Such is the connected history of the case, and, having glanced at it, let the reader revert to the state in which he and we found the patient on the 14th of March, when she was supposed to be about six or seven weeks advanced in pregnancy again.

After weighing all the circumstances, Dr. Holbrook was disposed to do nothing; but having waited half an hour, and not finding any progress made towards abortion, he abstracted eighteen ounces of blood from the arm, and exhibited a suppository of opium. The bleeding was immediately followed by faintness, and a state of reverie, which continued for a considerable time; after which the pains gradually became less urgent, and the intervals longer; yet they lingered about the back and uterine region for at least twenty-four hours, before the process of utero-gestation seemed to be free from interruption.

This attack was now subdued, and our author did not again see the patient till the succeeding May, towards the end of which month another attack of the same kind took place, which was relieved by similar treatment; as were also the succession of attacks which took place at intervals of about three weeks, until the sixth of August, when she was prematurely confined of a dead fœtus. The recumbent posture, strictly maintained, light tonics, and gentle aperients, were the principal means adopted in the interim. In June she had an attack of retention of urine, and the introduction of the catheter produced such suffering, that each time it was succeeded by "a delirious reverie" that lasted several hours.

After the expulsion of the dead child in August, she had again, for some days, retention of urine, but otherwise she seemed to be doing pretty well. On the 24th, however, eighteen days after her confinement, a febrile state ushered in phlegmasia dolens, first on one side, then upon the other. The veins were distended, and uneasiness was experienced in their course, the

swelling was far from very great, and the pulse was irregular and intermittent. There was no other symptom of affection of the heart.

Such are the facts of this interesting because not very uncommon case. When we use the terms not very uncommon, we do not mean that *all* the features are common—far from it; we merely intend to observe that the general characters of the case are not unfrequent. It is an instance of the multiform ailments, that arise from irritation or irritability of the uterine system. Sometimes *that* produces, as in this instance, symptoms directly referable to the generative organs—often it occasions sufferings in parts remote and not obviously connected with them. One female of this description will have excited sensibility of the uterus itself—"the irritable uterus;" a second will have simple hysteria; a third catalepsy; a fourth, morbid states of sensation in various regions of the body—pain in the chest, or the hypochondrium, or the breast, or the joints; a fifth, affection of the muscles of voluntary or involuntary motion—for example, chorea, wry neck, retention of urine, various forms of paralysis; a sixth, will exhibit a morbid condition of the mind, extraordinary tastes, altered affections, or a perverted morale.

All these are the offspring of that nervous condition of system, essentially connected with disturbance of the generative organs, and commonly called and considered hysterical. As its symptoms, or effects, are varied, so are the conditions on which it depends. Probably in the first instance, the functions only of the parts are deranged, and excitement of the ovaria or the uterus constitutes the efficient cause. But that excitement, attended as it is with periodical or permanent vascular action, lays the foundation of positive physical changes. Those changes are numerous, though seemingly minute. The most frequent is, no doubt, chronic inflammation and thickening of the cervix uteri. Sometimes fibrous tumors are developed in the substance, or on the surface of the uterus—sometimes polypi originate in its interior—sometimes cysts or other morbid productions occur in the ovarium; in short, the physical changes that ensue from morbid excitement of the uterus and the ovaria are very various and very vague.

It is too frequently the practice to set down to the account of mere fancy and caprice, the extraordinary symptoms of nervous females. Occasionally they arise from an absence of due control over the feelings or the passions. But frequently positive physical changes in the generative organs produce them, and it is equally unjust and cruel to suppose that mere efforts of the mind can put them down. The practical physician is well aware that positive affections of the organs of digestion are constantly the source of hypochondriasis, and that alterations of the brain are the cause of monomania. Yet it is not very long since the mind, an abstract metaphysical entity, was said to be exclusively in fault, and to morbid anatomy we owe the correction of this dangerous error. The case of hysteria is analogous to that of monomania and of hypochondriasis. Physical conditions of the uterine system, sometimes positive physical changes, give birth to its heterogeneous phenomena. And the object of the intelligent practitioner should be to determine in the individual case, whether any changes have occurred or not.

We have been led to make the preceding observations from having, on more than one occasion, seen actual disease of the uterus and its appendages

overlooked, and symptoms dependent on it attributed to mere nervousness and fancy. To revert to the case which forms the subject of the present notice. It is clear that it has been in a great degree one of a nervous character, the excessive irritability of the uterus and sensibility of the external parts affording sufficient evidence on that score. But, whether there has been actual uterine disease as well, is difficult, indeed impossible, to be determined. The last miscarriage evidently gave rise to inflammation of the veins, and cannot be supposed to have improved the unfortunate patient's condition.

The preceding case of neuralgia of the uterus is followed by a clever paper on the Unity of Organic Structure, by Dr. Dick, of Clifton. He labours to familiarise his readers with the analogies of formation and structure which exist between different organs of the body. The cranium, for example, has of late been demonstrated as an expanded vertebra, or rather three expanded vertebræ, and the physiologists who have pursued these analogical reveries upon the Continent, are familiarly known by the name of transcendentalists. Their speculations have elicited something that is interesting and curious—much that is fanciful, if not absurd—and little that is likely to be of any use.*

The well-informed medical practitioner should not be ignorant of their scientific researches. But we must pass to more practical matter.

IV. On Hydrometra. By *J. M. Coley*, Esq. of Bridgenorth.

Mr. Coley remarks that dropsy of the uterus is a rare disease, and has been confounded with preternatural secretion from the inner surface of the amnios. His object is to set its pathology in a clearer light, by the narration of two cases. Before we notice them, we may introduce his description of the complaint, which is short, at all events, if not strictly correct.

"When dropsy of the uterus is unconnected with pregnancy, the first obvious symptom, as far as my experience and observation extend, is a frequent discharge of offensive mucus from the vagina, with occasional detachment of organized lymph, in the shape of a membrane, resembling the membrana decidua. On examination, the os uteri is found closed and healthy; and the cervix, in the cases I have met with, greatly and irregularly thickened, indurated and exceedingly tender. The whole course of the vagina is inflamed, and painful on examination. Enlargement of the uterus, from the secretion of fluid within it, follows, which is either absorbed after the cure of the original disease, or the uterine distention is reduced by the spontaneous discharge of its contents.

The original disease appears to be an inflammation in the mucous coat, followed by ulceration. The deposit of morbid secretion in the fibrous coat, when

* It may be well to know that the male and female organs are essentially the same, and that both are merely a repetition of some part of the intestinal canal and its appendages; and it is pleasant to observe how the transcendentalists demonstrate the similarity between the labia and the lips—the clitoris and the tongue—the hymen and the soft palate—the vagina and the gullet—the uterus and the stomach and intestines—the fallopian tubes and the hepatic and pancreatic ducts—the ovaries and the liver and pancreas. The delighted reader rises from the pursuit of such beautiful and simple analogies, with his mind strengthened and refreshed.

it occurs, is probably the consequence of the same specific inflammation. Great pain accompanies the ulcerative process, as in analogous affections, where ulceration of the fibrous structure follows inflammation in its investing membrane." 359.

But, if the original disease be inflammation and ulceration of the mucous membrane, it differs from other mucous membranes in secreting, when so affected, a watery fluid. When we consider, too, how frequent inflammatory affections of the uterine mucous membrane are, and how rare dropsy of the organ is, we must hesitate before we subscribe without reserve to the doctrine on which Mr. Coley leans. This, however, is a theoretical consideration, and we proceed to the cases he brings forward. Before we do so, we must not omit to observe that, as the disease proceeds, the glands of the cervix uteri secrete the gelatinous fluid peculiar to utero-gestation, and the mouth of the organ is sealed. We will take Mr. Coley's second case first, because, being a fatal one, it is satisfactory in a pathological point of view.

Case 1.—*Feb.* 12, 1834. A female, æt. 36, mother of two children, the youngest nine years old, had been confined to her bed for four months with a tumor in the region of the uterus, attended with obstinate constipation, hectic fever, and extreme emaciation. On examination, Mr. Coley found a painful, irregular tumor in the hypogastrium, resembling that produced by the uterus in the sixth month of pregnancy, exceedingly tender to the touch, hard and prominent on the left, and comparatively flattened and elastic on the right side of the abdomen. The pain she felt was of a shooting kind, constant and varying in degree of intensity. The os uteri was sound and a little dilated. The cervix was closed and three-fourths of an inch long. The adjoining parts of the distended uterus, within reach of the finger, were of a stony hardness, unequal on the surface, and exquisitely tender, especially on the left side. The vagina was also particularly tender, and during the last four months afforded, at intervals, a dark-coloured, offensive, thick discharge, with portions of a membranous substance. Menstruation had ceased, and the breasts were enlarged and firm. From her own account, it appeared that, a year and a half previously, gradual enlargement of the abdomen commenced, with suppression of the menses; that she then believed herself to be pregnant; and that, at the end of seven or eight months from the commencement of this state, a sudden discharge of offensive fluid, with portions of a membranous substance, proceeded from, and completely reduced the volume of the uterus. Having made preparations for her expected parturition, and been thus deceived, she felt convinced, by her own sensations, that her present symptoms indicated a return of the disease.

Soon after this, Mr. Ingleby, of Birmingham, saw the patient, and thought that the uterus contained a living fœtus, a mistake which he afterwards freely acknowledged. The motion which he had taken for that of the child was the peristaltic action of the intestines. In March, Mr. Coley again saw her. He could discover no fluctuation in the uterus, from the vagina. In the latter end of March, there was a slight hæmorrhage from the vagina, preceded by the detachment of a thick piece of abnormal membrane. About the middle of May, peritonitis occurred. This was followed by purpura; and on the 15th she died.

Dissection. This was not performed till the 17th, when there were found:—

"Extreme emaciation. The omentum, in a state of mortification, intimately adhering to the uterus in front; and the abdominal peritoneum, on the left side of the body, was nearly a quarter of an inch thick, and inseparably united to the peritoneal coat of the matrix, which on every part, free from adhesions, was thickened and indurated with lymph, irregular on its free surface, and approaching to a tubercular condition. Every attempt to separate the omentum and abdominal peritoneum from the serous coat of the uterus was prevented by their intimate consolidation. The most firm union, thickening, and induration of these membranes were met with at the part, where the greatest tenderness, hardness, and resemblance to tubercle or scirrhus were observed during life; and that portion of the uterus in front, which had presented through the abdominal parietes the elasticity and figure of the swelling, produced by the serous fluid secreted by the amnios, was free from adhesion, except that with the omentum, which has been already described.

The fibrous portion, or body of the uterus, was so disorganized, that it was not thicker than an ox's bladder, and in some places it was altogether destroyed by an ulcerative process, which had commenced in the mucous membrane. On slight pressure being applied, the peritoneal coat at one spot, being free on both surfaces, gave way, and a thin, dark-coloured, offensive fluid, resembling that which proceeds from an ulcerated intestine, and containing portions of coagulable lymph, to the amount of three pints, escaped. The fibrous coat was quite destroyed at other parts, as well as the spot where the rupture took place; and the uterus, on being divided, collapsed like wet wash-leather, being generally reduced in thickness to the eighth of an inch, and having entirely lost its firmness and elasticity. In short, the principal support and figure of the organ were dependent on its indurated peritoneal coat, except at the inferior part near the cervix.

The whole of the internal or mucous surface of the uterus was found in a state of *ramollissement*, or of that species of ulceration observed in the mucous coat of the intestines in certain fatal diseases of these parts.

The cervix was obliterated with the gelatinous secretion, peculiar to the state of utero-gestation; and the walls of the uterus, adjacent to that part, were enlarged, and consolidated with a tuberculous mass, the principal portion of which was deposited in that part which rested against the rectum, and obstructed its passage. This morbid production consisted of an uniform white structure, and was free from those radiating bands, that gristly feel, and irregular surface, discoverable in scirrhous indurations.

The other abdominal viscera were free from disease, except the colon, which had undergone extreme distention, and was loaded with hardened fæces." 366.

Mr. Coley conjectures that the disease, in this instance, commenced in the mucous membrane of the uterus, and extended from it to the other tissues. When, however, such extensive alterations have occurred, it is difficult to determine how or in what tissue they commenced. Mr. Coley may be right; yet it is not usual to observe such excessive mischief from ulceration of the mucous membrane of the intestines, as he supposes to have followed ulceration of the uterine mucous membrane in the present case.

Mr. Coley refers to two cases lately published, the one by Dr. Ramsbotham, the other by Dr. A. T. Thomson. In the former, the mucous coat of the uterus was entirely destroyed by ulceration, the walls of the organ not being more than one-fourth of their usual thickness, and several black spots, as in his own case, being observable in different parts. In Dr. Thomson's

case, as in Dr. Ramsbotham's, the os uteri was obstructed, and, in the latter, almost obliterated. Dr. Thomson also refers to a case, related by Vesalius, in which the uterus was found to contain 180 pints of serous fluid, the os uteri being firmly closed. It is probable that dropsy of the uterus existed, and was cured in a patient, who consulted Dr. Thomson on account of an uterine tumor, which had been gradually increasing during eleven months; and a similar case was observed in the practice of Dr. Merriman.

Mr. Coley details the particulars of a case, which terminated in a favourable manner. This we shall notice.

Case 2. On the 31st of March, he was consulted by a female, aged 30, of an exsanguineous complexion, on account of pain in the region of the uterus, accompanied with a sense of prolapsus, and a troublesome discharge of a thin, acrid, mucous fluid from the vagina. She had three times supposed herself to be pregnant while suffering with this disease, and at the end of three months, each time, a flow of an offensive thin fluid took place, followed by an immediate subsidence of the swelling in the hypogastrium. On examination, he found the vagina very tender, and the uterus, adjoining the cervix, so indurated, thickened, and sore, that he suspected the existence of carcinoma. The os uteri, however, was healthy, and he determined to try the effects of mercury. As soon as the mouth became affected, the thickening and induration of the uterus subsided, and at the end of two months, all these symptoms had disappeared. In the following August, there was a slight discharge from the vagina, which was relieved by copaiba, and a lotion of alum and zinc.*

In Dr. Thomson's case, mercurials appeared to be productive of some service.

V. RECORDS OF OVARIAN TUMORS.

Such is the title of a paper by Dr. Barlow, physician to the Bath Hospital. His object is to add some contributions to the pathology of ovarian tumors, a subject on which our information is neither so precise nor so extensive as we could desire. It is only, as Dr. Barlow observes, by means of multiplied observations, that we can hope to acquire accurate information.

The majority of the cases we are about to notice were those of patients of the Bath Hospital. The records were kept with fidelity and diligence, and Dr. Barlow, having no theories to bolster up, confines himself to simple condensation and analysis. He takes occasion to observe, prior to commencing the narration of the cases, that, in their earlier stages, ovarian tumors probably fail to display the same structural characters and alterations, which we find them exhibit at a late period of the disease; *then* all seems hopeless disorganization. Unfortunately, we are not possessed of a sufficient number of dissections of ovarian tumors in an early stage, to enable us to arrive

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* It is common to see copaiba ordered for vaginal discharges. Yet probably it exerts no influence whatever on the mucous membrane of the *vagina*. The practice is drawn from the effects of the medicine on the male urethra—a very different affair.

at any satisfactory conclusions on this point. It is certain that ovarian tumors frequently run a very slow course, and that occasionally they diminish, or even disappear, under the influence of remedies. We have something to hope, besides the gratification of scientific curiosity, from the prosecution of inquiry. We will proceed at once to our author's cases.

CASE 1.—*Ovarian Tumor, rapidly fatal.*

Mrs. E. S. æt. 36, had married early and borne six children, the youngest three years old, when, about Midsummer, 1828, she appeared out of health, and the abdomen began to display some fulness. Her indisposition increased, and an examination of the abdomen was made; when a small tumor was distinctly felt, midway between the umbilicus and the symphysis pubis. In a short time, effusion into the abdominal cavity took place—enlargement proceeded rapidly—fluctuation became indistinct, and finally ceased altogether—and in October the patient died. A short period before death an attempt was made to relieve the oppressive distention by tapping, but unsuccessfully. The effusion being then encysted, a single sac only was punctured; but little fluid was drawn off, and the distention was unrelieved. Worn out by suffering and exhaustion, she did not survive the operation many days.

Dissection. Nearly the whole abdomen was filled by a large tumor, which pushed up the diaphragm, and displaced the intestines. The peritoneum was inflamed, the viscera being more or less agglutinated by lymph, and the parietes of the abdomen being united to the anterior part of the tumor.

The tumor itself appeared, externally, as one uniform cyst, but when cut into, it was found to be made up of innumerable cysts of different sizes, and in different states; some were not larger than a marble, and contained fluid of a milky whiteness; others contained the same kind of mahogany-coloured fluid that was let out at the operation, with large flakes of lymph mixed with it, approaching the nature of pus; others contained a fluid having the consistence, the appearance, and the odour of pus. Most of those in the centre of the tumor were highly inflamed. Most of the cysts were thick, with large bloodvessels running on their surface, and they were divided and subdivided by cellular bands. The largest cyst would have held eleven or twelve ozs. The left side of the tumor extended into the pelvis; the right side, and the great bulk of the tumor, were elevated above the pelvis. It was the right ovarium, unconnected with any other part, except by the adhesions to the anterior parietes. The right fallopian tube was unaffected, and its fimbriated end was free. The other parts of the uterine system, and the other abdominal and thoracic organs were tolerably sound.

It is obvious that the ovarian tumor, in the preceding case, was the seat of considerable inflammatory action. Inflammation of an ovarian cyst is not an uncommon consequence of tapping it, but occasionally, as in the case before us, it occurs independently of any operation. The medical attendant should be well aware of this, and when he finds that the tumor is tender on pressure, or painful at other times, with a frequent pulse, warm skin, and irritable stomach, he should employ those means which are calculated to reduce, in a gentle manner, inflammatory action.

CASE 2.—*Ovarian Tumor, simulating Ascites—Injurious Effects of Mercury.*

Towards the end of 1823, Miss E. S. æt. 22, applied to Dr. Barlow with

symptoms of impaired health, and fluctuation in the abdomen, which Dr. B. attributed to ascites. She had been declining in strength for some months, and had been looked on as dyspeptic. Dr. B. prescribed remedies calculated to remove peritoneal effusion, but in a short time peritoneal inflammation supervened. This was relieved, but the enlargement of the abdomen continued, and, indeed, advanced. On the 15th of March she was tapped, and 21½ pints of straw-coloured serum, like that of ascites, were drawn off. The subsequent tappings, the quantities abstracted, and the nature of the fluid, are shewn in this table.

Date of Tappings.	Quantity. Pints.	Date of Tappings.	Quantity. Pints.
1825.—15th March,	21½	1826.—4th July,	17 purulent
13th May,	10½	25th July,	8 purulent
22d July,	15	22d Aug.	4
9th Dec.	12	9th Oct.	8½ semipurulent.
1826.—24th April,	27	13th Nov.	11
10th June,	21 purulent	4th Dec.	13

Soon after the last tapping, she died.

Dissection. The disease proved to be ovarian, the seat of effusion being one large sac arising from the left ovarium, and extending over the whole abdomen. At the bottom of the sac the ovary was considerably enlarged; and, when cut, exhibited a congeries of sacs of different sizes, filled with all the different secretions which such tumors usually present. The principal sac which covered the several viscera, was but slightly adherent to the parts around, and easily separated, no vascular attachments having taken place.

Dr. Barlow alludes particularly to a circumstance in this case, which is practically not unimportant.

Some time previously to the tapping of June, 1826, the general health was giving way, and disease obviously making more rapid advance. It was very desirable to arrest its progress; and after deliberate consultation, a more active use of mercury was resolved on as worthy of trial. She was confined to bed; took full doses of calomel; and, as the system was not easily affected, inunction was conjoined. The gums became tender, but salivation was not induced. After pursuing this course for a certain time, it was relinquished, not from any ill effects immediately induced, but from the hopelessness of any benefit resulting. Very shortly after, however, the constitution seemed at once to give way; sickness and vomiting occurred, the mouth and fauces were filled with aphthæ, and there was good reason to believe that a similar condition pervaded the lining membrane of the whole alimentary canal. With great difficulty was she recovered from the exhaustion that ensued, bark and wine being largely required. She did recover, however, from the constitutional disturbance; but, on the next ensuing tapping, in June, the contents of the sac, instead of the straw-coloured serum antecedently drawn off, proved to be complete pus, such as any large abscess would yield, and which was evacuated to the extent of 21 pints.

The two following tappings, of the 4th and 25th of July, also yielded purulent matter; after which the purulency abated, and the fluid discharged was noted as semipurulent, but it never recovered its serous character.

The preceding case is an example of the more ordinary form of ovarian dropsy. One cyst acquires a large size, and becomes distended with fluid.

Other small cysts occupy the remainder of the ovary, but do not attain sufficient magnitude to constitute an important portion of the tumor.

Case 3.—*Ovarian Tumor fatal, from Ulceration of the Sac and Effusion of its Contents.*

A servant, æt. 40, became affected, in June, 1831, with pains in the abdomen, quickly followed by swelling of it and of the legs. In July, her size was equal to that of a woman in the eighth month of pregnancy. Her size increased rapidly, with so much tenderness of the abdomen, that bloodletting was necessary. On the 15th she was tapped, and 13 pints of dark puriform fluid, intermixed with flocculi of lymph, were discharged. The improvement after the operation was considerable, but only temporary, for the effusion returned, her health suffered, and, on the 3d of August, she was admitted into the Bath United Hospital.

On the 8th, the abdomen was 38 inches in circumference, with much distress in breathing. She was to be again tapped, but circumstances delayed the operation, and in the night of the 11th, she was seized suddenly with vomiting, giddiness, colliquative sweats, and extreme prostration. At noon next day she died.

On dissection, it was found that an ovarian sac had ulcerated, and that, through the ulcerated aperture, its contents had escaped into the abdomen.

Dr. Barlow observes that this case is calculated to shew us, that delay in tapping an ovarian cyst is not always beneficial.

The two cases which follow in the paper present no particular features to detain us. We, therefore, proceed to some in which the result was not so unfortunate as in those we have hitherto related.

Case 4.—*Ovarian Tumor—beneficial Effects of Antiphlogistic Treatment.*

This case is very long, both in the narration, and in the period it was under observation. The details are spread through a space of three years, and the individual was ten times an out-patient of the hospital, and eight times an in-patient. We must exercise some violence on the particulars, and content ourselves with exhibiting the more prominent. A tableau or two will give a sufficient notion of the more important.

Sophia Wilkins, æt. 21, first became an out-patient in Sept. 1828. She had then febrile complaints, and pain in the lower part of the abdomen, with a very irregular condition of bowels, which were sometimes costive and sometimes relaxed. Antiphlogistic and other appropriate treatment relieved these symptoms, and she quitted the hospital in January.

She had not been long out before she had "epileptic seizures," and those numerous symptoms which, to our mind, prove sufficiently distinctly that she laboured under "hysterical" disorders. She was sometimes an out-patient, sometimes an in-patient, till March, 1830, when she again became the latter. About this time, the hypogastrium had grown so full, and a tumor on the right side was so prominent, that Dr. Barlow applied a caustic issue over it. The effect would appear to have been highly satisfactory, for in June she was discharged "greatly improved." As an out-patient, she was actively bled and cupped. Now a new symptom presented itself—hæmatemesis. Still bleeding, cupping, leeching, frictions with tartar-emetic, were employed. In June, 1831, there was a renewal of pains in the hypogastrium, with dry tongue and loose bowels. Bleeding, cupping, and blistering set

her to rights. This was the last time of her being an in-patient. Thrice afterwards she was an out-patient, having, among other symptoms, epistaxis. The usual means had the usual effect, and after another application in April she took her final leave of the hospital.

Dr. Barlow has constructed, with curious diligence, a table of the bleedings, leechings, and blisterings, which this patient underwent. We extract it, for the edification of our readers.

"TABULAR VIEW.

VENÆSECTIO.

1828.—Sept.	13	..... ad oz.	12
Dec.	29	.....	10
1829.—July	22	.....	12
Aug.	24	.....	10
1830.—Jan.	10	.....	10
Feb.	20	.....	12
March	31	.....	10
April	17	.....	12
Aug.	18	.....	10
Nov.	22	.....	10
Dec.	6	.....	10
1831.—March	16	.....	10
—	26	.....	10
July	2	.....	10
—	25	.....	12
Sept.	17	.....	10
Dec.	10	.....	10
1832.—Jan.	7	.....	10
			190

HIRUDINES.

1828.—Sept.	17	....	8 temp.
Oct.	18	....	12 abdom.
—	23	....	12 —
—	25	....	12 —
Nov.	14	....	12 —
—	26	....	6 temp.
1829.—Jan.	9	....	8 —
Feb.	17	....	12 abdom.
Sept.	1	....	10 temp.
Dec.	20	....	12 abdom.
—	24	....	12 —
—	25	....	12 —
—	29	....	12 —
1830.—Jan.	18	....	8 circa anum
Feb.	24	....	12 abdom.
April	1	....	12 —
—	18	....	12 —
May	1	....	8 circa anum
—	3	....	18 abdom.
—	24	....	12 —
Oct.	6	....	12 —
Nov.	5	....	12 —
—	14	....	12 —
1831.—Feb.	13	....	24 —
—	23	....	18 —
1831.—March	1	....	18 abdomini
—	6	....	18 —
—	27	....	18 —
July	22	....	12 —
—	24	....	8 circa anum
1832.—Jan.	4	....	12 abdom.
			386

CUCURBITULÆ CRUENTÆ.

1829.—Sept.	3,	nuchæ, ad oz.	10
—	17,	——	12
1830.—May	12,	——	10
Aug.	7,	——	10
—	21,	——	10
Sept.	1,	abdomini,	12
—	8,	——	12
—	18,	——	12
Oct.	7,	——	12
—	11,	——	12
—	14,	supra renes,	8
—	29,	abdomini,	12
Nov.	1,	nuchæ,	10
1831.—March	9,	——	12
—	25,	abdomini.	10
May	7,	——	12
June	29,	——	12
July	6,	——	12
—	16,	——	12
—	21,	——	12
Sept.	14,	——	12
			236

VESICATORIA.

1828.—Oct.	11	....	lateri
Nov.	1	.....	abdomini
Dec.	3	.....	——
—	19	.....	——
1829.—Jan.	1	.....	pectori
—	31	.....	abdomini
May	2	.....	——
June	6	.....	——
1830.—Jan.	1	.....	——
Feb.	19	.....	——
Nov.	15	.....	lateri
1831.—Mar.	12	....	nuchæ
			12"

Thus this young woman lost, in three years, 190 ozs. of blood from the arm—236 ozs. by cupping—had 386 leeches applied to the temples, abdomen, and anus—and smarted or rejoiced under twelve blisters.

Dr. Barlow owns that the merit of the cure belongs almost equally to the patient and physician, for the former decided when the latter was in doubt.

"The intelligence (he says) of this patient often assisted my judgment in regulating her treatment, and determining in what way relief would be best afforded. Oftentimes, when balancing whether to take blood from the arm, or by cup or leech, has she decided me, by stating her own belief of what would benefit most—a persuasion founded on her experience of past treatment, and unbiassed by the apprehension of pain, by which weaker minds would have been influenced. Many times, when local depletion was indicated, have I hesitated to apply cupping-glasses to the hypogastria, lest the pain occasioned should be too severe, when she urged me to disregard such consideration, as she was sure that cupping would relieve her more than any other remedy." 413.

On reverting to the case, we discover no very positive evidence of much ovarian disease; the characters are rather those of a general hysterical or nervous condition, connected, no doubt, in an intimate manner, with disturbance of the uterine system. Obstructed catamenia—epileptic seizures——hæmatemesis—epistaxis—continual vascular disturbances, are symptoms which the practical physician cannot fail to read in the sense we have alluded to. Yet the result of the treatment employed is deserving of consideration, proving, as it does, that dangerous as excessive depletion is in very many of these cases, there are yet some females, in whom it may be practised with great advantage, if it is not absolutely indispensable.

The succeeding cases are brought forward by our author, as remarkable examples of recovery, under circumstances that appeared exceedingly unfavourable.

Case 5. A girl, æt. 18, applied at the hospital on the 11th of October, 1828, on account of abdominal pains and some degree of fever. She had menstruated regularly, but scantily. On the 22d, she was received into the house.

"At this time, the abdomen was very large, and it continued so throughout her illness, at times increased so as greatly to exceed the size of ordinary pregnancy. The fulness, however, though general over the abdomen, had commenced in the iliac region, and ascended; all the evidences derived from the symptoms and the progress of the disease, marking it as decidedly ovarian. On her admission, the torpidity of the bowels claimed the chief attention, the most active purgatives being required. Contingent derangements soon appeared. First affections of the chest with hæmoptysis; afterwards determination of blood to the head, with epileptic seizures. These received their appropriate treatment, which was chiefly depletory, due attention being always given to the primary disease. Leeches and blisters were applied consecutively to the head, chest, and abdomen, repeatedly to the latter, the bowels being steadily purged. Acute symptoms being abated, a trial was given to galvanism, with a view to reduce the special tumours, but with little effect. So inactive were the bowels, that the constant and assiduous use of active purgatives was needed." 423.

We need not particularise the purgatives, which were pretty sharp. In Jan. 1829, she was so much relieved, that she was made an out-patient. Whilst an out-patient, vigorous depletion was still employed, and in May

she was dismissed. In June, 1830, she returned with obstinate diarrhœa. This was checked by catechu and copper, but, "the abdominal fulness continuing, and the hypogastric tumors increasing," she was re-admitted as an in-patient in July. The "tumor being chiefly prominent in the right hypochondrium," a caustic issue was made over it. Inflammation now attacked the chest, head, stomach, and liver, and she had an attack of jaundice. She recovered "under active treatment." In August she was discharged, and in September again admitted. She had now epilepsy. Depletion was pursued, and succeeded by the use of iodine. She was again dismissed, again received, and discharged again: but we need not dwell on the repetition of former symptoms and of former treatment. After August, 1830, it would seem that there was "a gradual and progressive decline of the tumor." At Christmas, 1831, she thought proper to marry. She became pregnant, and miscarried between the second and third month. After this she became pregnant again, and in April, 1833, was delivered of a healthy child, after an easy labour.

"I have repeatedly seen her within the last two years, in full activity, and professing to be in perfect health. She is always large in the body; but on examination of the abdomen no trace of tumour was perceptible. From the length of time during which she continued a Hospital patient, she was seen and examined by dozens of medical men, none of whom ever entertained a doubt of the nature or character of her disease. How such a result could have obtained, in a case so apparently inveterate, I am unable to explain." 426.

We must suppose that the medical men could not have been deceived, and that ovarian enlargements really existed. There is one consideration which must tend materially to diminish our surprise at such cases as the preceding. The vascular system of young women is in so uncertain and vacillating a state, that the irregular determinations of blood to certain parts and organs are endless. One day, we see such a patient spitting blood from the lungs—the next, perhaps, voiding it from the bowels—soon afterwards attacked with epileptic fits—then seized with menorrhagia. Yet all this ends in nothing serious, and when menstruation is fairly re-established, these formidable symptoms disappear.

The vascular system plays so very important a part, both in the formation and absorption of morbid depositions, that enlargements of some consequence may take place in so vascular an organ as the ovary, without any irremediable alteration of its structure. The practical surgeon or physician soon ceases to be astonished at any of the vagaries of the female constitution. Her uterine system, the animal in animale, modifies the functions of her other organs, and occasions that host of heterogeneous disorders, that ape all maladies, yet often go as they came, and leave—

Not a wreck behind.

It appears to us that Dr. Barlow is too apt to place to the account of inflammation, these determinations of blood in the female. In his cases, we see a succession of phlegmasiæ, combated with heroic depletion. Without questioning his powers of diagnosis, we think we may be permitted to observe, that pains in this spot or in that, and symptoms which closely simulate those of inflammation of any or of every organ, constantly present themselves in women, independently of actual inflammation. It is true that, in

individuals of a full habit of body, a little depletion is sometimes of use, but in many, if not in most, of these cases, it is injurious when carried to any extent.

Case 6. M. A. Scudamore, æt. 21, became an out-patient, July 25th, 1829, for acute pains in the abdomen, which had commenced with diarrhœa. Depletion was adopted, but she was seized with nephritis, and was then necessarily received into the house. Calomel and opium, in addition to the former plan, relieved her, and in September she was discharged well.

The pains soon returned, however, and on the 9th, she was re-admitted an in-patient, the special disease beginning to manifest itself by fulness in both iliac regions. On the 10th it is noted, in the record of symptoms, that these tumors were prominent, and separated by a depressed line extending from the umbilicus to the pubes. Leeches, blisters, calomel and opium, &c. were again resorted to, and again with benefit; for in November she left the hospital.

On the 26th of December she again appeared, with the usual abdominal ailments, accompanied with cough and dyspnœa. The abdomen was more full, the breathing much oppressed, and there was œdema of the lower limbs. All these affections were attended to, but on the 6th of January, 1830, it became necessary again to receive her into the house. On this occasion her sojourn in the Hospital was longer than usual, for she was not again discharged until the 4th of May. The period was marked by continued distress within the abdomen, increased by incidental affections, both of the head and heart. There were several severe epileptic seizures; and inordinate action of the heart was accompanied with acute pain of the left side. For all these depletion was necessary, and freely employed. In April the left hypogastric tumor had become so prominent, that a large caustic issue was made over it. In May she was so much relieved, as to be again made an out-patient.

An out-patient she continued till September, diarrhœa being the prominent symptom. This was not checked till she was again admitted. Then iodine was cautiously tried, but, after a fortnight, pains of the head and side, a hot skin, and inordinate action of the heart necessitated its discontinuance. All these symptoms were mitigated by the usual treatment, and she was dismissed in November, the tumors still remaining.

Why should we hunt the unvarying details? Now the head was affected, now the chest, and now the bowels; depletion being employed for all. In April, 1831, the hypogastric tumors had so advanced, that a caustic issue was made over each. In August they were renewed, from her own conviction of their utility. Paralytic symptoms were now added to the former list, but all amended in the latter part of 1831, and, better still, the tumors were sensibly subsiding. Yet we have alternations of improvement and relapse till September 1833, when she too was a married woman. The remainder of the tale may be told in Dr. Barlow's own words.

"Twice afterwards did she become an out-patient for her ordinary disturbances of health, namely, on the 1st of January, 1834, continuing until the 19th of April; and on the 7th of May, continuing to the 16th of August. By this time she was far advanced in pregnancy, and on the 8th of November, she was safely delivered of three female children, who were baptised by the names

of Faith, Hope, and Charity. She suckled the whole for the usual period, and both mother and offspring continued afterwards in perfect health, as I had repeated opportunities of witnessing. She is, I understand, again pregnant, and suffers from some of her old complaints, but is now attended by the accoucheur who put her to bed, and has not latterly come under my observation.

A tabular view of the bleedings, &c., such as was annexed to case VI., is scarcely necessary; yet it may not be uninteresting to state, that in the course of this protracted disease, she was bled 45 times, to the extent of 384 ounces; was cupped 12 times, to 102 ounces; had 408 leeches applied; 16 blisters; and 6 caustic issues, four of these being applied over the left ovarium, and two over the right." 433.

'Well might her first and second born be christened with the inspiriting appellations of Faith and Hope. Unless their mother had long been pregnant of both, she could not, we conceive, have been delivered of either. Dr. Barlow may be considered the Father of Charity, for verily his were the works.

VI. CASE OF FUNGOID TUMOR, SUCCEEDED BY MELANOSIS. By Dr. *Norris*, of Stourbridge.

"On February 6th, 1817," says Dr. Norris," Mr.——, aged 57, of light brown hair and fair complexion, apparently in good health, applied to me in consequence of the inconvenience he felt from a tumour, situated nearly midway between the umbilicus and pubes. He told me there had always been a mole exactly in the same spot, and that, nine months ago, the skin around this congenital mark, assumed a brownish hue, and that from the part thus discoloured a tumour began to arise. On examination, I found the swelling was nearly of half the size of a hen's egg, of a deep brown colour, of a firm and fleshy feel, ulcerated on its surface, which discharged a fetid ichorous fluid. The apex of the tumour was broader than its base. Some few months after the appearance of this tumour, distinct nodules sprung up around it, some with slender necks, others with broader bases. This singular production was at length removed by the knife, and the wound went on favourably, and healed. In less than six weeks the tumour again began to grow from the cicatrized surface, and felt hard and semi-cartilaginous, and very soon minute tubercles, of a livid colour, surrounded the tumour; some of them separated from, and others growing into, each other. Of the latter sort there were, at least, forty in number, forming a mass of disease, extending nearly from the spine of one os ilium to the other, and bearing a resemblance to a large bunch of dark-coloured grapes, some of them flattened on the surface, and of various sizes. The prominent scirrhous-looking tumour occupied the centre; the tubercles already formed progressively increased, while fresh ones arose in the vicinity. The glands in the groin were swollen, and slightly tender to the touch.

This disorganization of parts was effected in two months, and continued to increase after that period. Yet the general health of the patient was not so much impaired as to prevent the regular use of exercise, nor did it interfere with the pursuits of business. Lancinating pains occasionally affected the diseased parts, and an early and continued symptom, was an excruciating pain near the right kidney. The secretion from the kidneys, at times, resembled porter, and deposited a lateritious sediment. At length the constitution began to suffer more severely. Nausea and loss of appetite gradually came on, accompanied by restlessness and excessive depression of spirits. Bluish spots arose in the vicinity of a mole upon the sternum; others appeared, in succession, on the sides of the body, and on the back; and very soon the forehead and scalp were disfigured with the same morbid appearances." 439.

A surgical operation was, of course, out of the question. Dyspnœa and cough now came on, and proved exceedingly distressing. The patient's strength gradually sank—he was tormented with a feeling of heat and fever, although the temperature of the surface did not seem to be increased—and, dropsy supervening, his existence terminated.

Dissection. On cutting into the original tumor it displayed throughout a reddish and whitish-brown tint not unlike that of the interior of a nutmeg. The newly-formed tumor and tubera exhibited the same dark-coloured appearance, and on puncturing a considerable number of the tubercles, a thick dark fluid was discharged from them.

On making an incision from the upper extremity of the sternum, and exposing the ribs, a small tubercle was found near the angle of one of them. By a division of this morbid growth, it was evident that the disease was not confined to the periosteum, but had extended to the very substance of the bone. On continuing the incision towards the umbilicus, numerous distinct spots were found dispersed through the cellular substance.

On opening the abdomen, there were tubera of various sizes scattered in profusion in every direction—on the stomach, intestines, mesentery, omentum. The mesenteric glands were much enlarged, and on cutting into them a large quantity of a fluid like tar made its exit. The pancreas, liver, kidneys were affected, especially the liver. The spleen and bladder were the only organs exempt from the disease.

The lungs were, on both sides, thickly mottled, in large and smaller masses, throughout the greater part of their texture. The same mottled appearance was still more vividly displayed on the heart, and the specks were minute, more numerous, and distinct; the heart was almost literally encrusted with them, both externally and internally, and the tubera were from the size of a pin's head, to that of a pea. A few small specimens of the disease were deposited on the inner coat of the descending vena cava, but the arteries did not appear involved in the disease. There was about a quart of fluid in the abdomen; nearly a pint in each bag of the pleura; and, perhaps, two ounces in the pericardium. On dividing the scalp, many of the same diseased appearances were observed, both on the skull-cap, and on the fascia covering the temporal muscles. The dura mater was also studded with them, though much less numerously than the mucous and serous membranes. The ventricles of the brain were nearly filled with fluid. The brain itself was apparently healthy; and with the exception of one speck on the leg, the extremities were free from the disease.

Dr. Norris mentions some circumstances which may lead us to suspect that the disease, in this case, displays some hereditary tendencies. The patient's father had numerous small tumors between the shoulders, which were severally cauterized; and, soon afterwards, he died. The tumor in this patient originated in a mole. His father and brothers had many such, his children are affected with them also, and his youngest son has one in the same place where the disease commenced in himself.*

Dr. Norris observes that there is reason to think that melanosis is of

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* Since the Father's decease, several of the children have been "suffering with tumors of an alarming aspect."

a kindred genus with fungoid tumor. We think there can be no question of that, melanosis appearing to be little more than a variety of fungoid disease.

When nothing satisfactory can be said on the treatment, perhaps it is better to be silent. As the disease has been attributed to excess of carbon in the blood, it is advised to give as little as possible of those aliments from which carbon is obtained. Salt too is recommended to—do, we hardly know what; for it is not proved that the blood is deficient in saline matters. In truth, such remedies are likely to be mere playthings, and if any thing is to be done it is by iodine, or by some of the more potent medicines.

"Laennec believes the ancients were acquainted with melanosis, and alludes to a case in Haller, where an inky fluid was found in the chest; but is it not probable that this liquiform melanosis is nothing more than a secretion, similar to that we observe in the disease called black vomit? and that true genuine melanosis, like fungus hæmatodes, is altogether a new disease?" 445.

Black vomit is not a disease, but a symptom. We would observe too, that there is little reason to doubt that black vomit is nothing more than effused blood blackened by the free acid of the stomach; it cannot, therefore, be styled a secretion, and Dr. Norris' analogy is defective. It would be useless disputing the antiquity or novelty of melanosis. So far as an opinion goes, we think it is more probable that neither it nor fungus hæmatodes are actually new diseases, but that both have been in former days confounded under the general term of cancer.

This completes our notice of the present volume. There are some clinical reports, which will be found in the department of this Journal set aside for them.

A PRACTICAL TREATISE ON URETHRITIS AND SYPHILIS, &c. &c. By *William Henry Judd*, Surgeon to His Majesty's Fusileer Guards, &c. &c.

[Second and concluding Article.]

IN the 48th number of this Journal—that for April of the present year—we noticed at some length the first part of the volume which is now before us, and dispatched the consideration of primary venereal symptoms. We promised, at the conclusion of that article, to return in the succeeding number to the subject of lues, and to lay before our readers an ample notice of that portion of the work of Mr. Judd which treats of its secondary consequences. Accident prevented our redeeming that promise in our last number, and we therefore return to the task in this.

If such of our readers as take an interest, and all should do so, in the treatment of the venereal disorder, will revert to our notice of the first part of Mr. Judd's work, they will find that we took exception to many of his inferences, and offered some reasons for doubting whether he had thrown

much light on the primary features of this singular malady. With minds perfectly unbiassed in any way, we proceed to examine our author's conclusions with respect to its secondary symptoms, and if we have a leaning, it is towards partiality and praise. We know Mr. Judd to be an unaffected, industrious, and honourable man, and it may be readily supposed that we can feel no inclination to point against him the severity of criticism. But placed as we are, there is one consideration paramount to all others—the necessity of discharging our duty to the public, and of offering an honest, though probably a far from able, estimate of the work that we take upon us the responsibility of reviewing.

Two hundred and twenty pages were traversed in our last notice. They were passed with speed, for the great majority were occupied with cases, which, proving little save the industry of the observer, were easily disposed of.

Three hundred and forty-eight remain, and we are not quite sure that they will admit of absolute and beneficial compression into the sixteen or twenty that our engagements enable us to afford them. For not only are those pages occupied with a view of venereal secondary symptoms, but a chapter is devoted to the hydriodate of potass, a remedy which is now extensively used, will probably be much abused, and therefore demands from us more than usual attention. Probably we shall throw our observations on this head into the shape of a separate article. We shall see about this bye-and-bye.

Venereal Eruptions.

It has been doubted by those who either have no such organs as eyes, or believers, perhaps, in the doctrine of innate ideas, have philosophically determined not to use them, whether such things as venereal eruptions exist. Persons of ordinary intellect will probably be more convinced that they do, from actually seeing their occurrence, than from reading the best metaphysical proof that the subtlest disputant could offer. But Mr. Judd starts with some analogical considerations, which he thinks calculated to elucidate the question.

Were it needful, he remarks, to prove, for the satisfaction of the scientific, that venereal poisons produce roseola, ecthyma, and so on, it would only be necessary to point out to them the similar eruptions that follow the application of morbid poisons to the surface of the body, or to its interior. If copaiba, for example, swallowed produce a rash upon the skin, is not that evidence, argues Mr. Judd, that lues does the same? He carries this analogical argument to some extent, and on mixing up with it portions of other analogies also, there results the following passage.

"Now enough has been brought to mind, to show the reader that roseola is often both the produce of unwholesome chyme, and also of animal poisons from muscles, pus, etc.; and why should not venereal roseola be the produce of that particular poison? and occupy portions of cuticle in the form of puniceous patch, etc., as after other poisons? or, when more intense, why should it not rise into papulæ, like erythema papulatum? Though, I confess, from our too limited knowledge of the relations existing between cause and effect, I know not why

venereal mottled skin is at times but a delicate exanthematous rash over the whole body, and at others grouped into strongly-marked puniceous patches—or why, in instances, it is bounded into circular ones, as in maculæ coccineæ. But the facts and appearances are such, that we might reasonably infer by analogy, that Nature had formed these strong resemblances as a link of connexion, to bind together what appear to be the most distant with the most intimate forms of eruption, and yet without destroying their beauty, symmetry and variety, by jumbling them together as one cutaneous affection. It is quite curious to observe how much eruptions occasioned by copaiba (probably from causing the chyme to be poisonous to the system) resemble the puniceous patches occasioned by venereal virus, as also those produced by urethritis: indeed they cannot be said to differ, except in the more diminutive size of the patches of the former. If I wished to define Nature's method of producing the puniceous patch of mottled skin, the papulæ of lichen, the vesicle of rupia, or the pustulæ of ecthyma, I would take as a simile the blushes arising by simple friction upon the skin, and compare them with the irritation produced by animal poisons: and what, let me ask, would be the effect of the farmer's labourer lacing his boot too tight? or the soldier blistering his foot by a march; why a small degree of friction from either cause would induce redness or erythema; and if carried a degree or two further, it would, by inflammatory action, occasion lymph to be thrown out, and generate a blister or vesicle; and a degree of friction a little beyond this would lead to the formation of pus, and make the latter a pustule: and thus all the intermediate stages will have been gone through, from the erythema or puniceous patch, to the throwing out of clear lymph, as in the vesicle; or to the secretion, so produced, becoming opaque lymph, or genuine pus, as in ecthyma: these are but similar changes to those we observe in the vaccine vesicle, or in a vesicle that becomes a pustule by the mere friction of the clothes. After taking these few simple and familiar examples into consideration, surely no one will say, that the changes in eruptions from mere cuticular redness to enlarged papillæ and tubercles, or even from vesicles to pustules, are so wide, or so great, that they surpass our comprehension! Nor will any one be surprised at the curious, and almost endless variety of papulæ, vesiculæ, and pustulæ, so frequently exhibited during an almost continued eruption; or that one form should be changed into another, like a metamorphosis in Ovid!" 225.

We confess that, were we sceptical before, our doubts would not be materially dispelled by the preceding argument. Like a skilful painter, the author has thrown into it a dash of the *chiaro-scuro*, which may heighten the effect, but diminishes, in some degree, the clearness. The rigid reasoner will probably observe, that the passage before us appears to embody two analogies essentially distinct:—The first, that as various substances, applied to the interior or exterior of the body, occasion eruptions, secondary in point of occurrence, on the latter, so does, or rather may, the venereal poison;—the second, that as local irritants of various intensities produce various degrees of irritation, so are the various venereal eruptions to be regarded as evidence of various amounts of primary venereal virus.

The first analogy is sufficiently correct, and we can perceive little difference, in principle, between the eruption of variola, produced by the inoculation of the primary poison, and the eruptive sequelæ of lues, presented by the inoculation of it. The analogy, we say, is a good one; but, in point of fact, it is unnecessary, because the evidence is just as strong on one side as on the other, and we only rob Peter to pay Paul, if we attach more relative credit to either.

But the second analogy is demonstrably fallacious. If a man chafes his

heel by a walk with a tight boot on one day, and produces erythema—and if, by walking a second day with the same boot, he frets the irritated surface to a blister, the local irritant is obviously increased in intensity, and the local irritation is proportionally augmented. But if the same individual, from one infection, has first lichen and then pustule, the sequelæ differ indeed, but what evidence have we of the primary irritant being augmented. The analogy is not illustrative, for the similarity of the premises, necessary to constitute the analogy, is assumed. A pregnant instance this of the unfortunate laxity of reasoning that prevails in medical works—a laxity that accounts satisfactorily enough for the opposite conclusions of medical inquirers on all medical subjects.

On these and some similar arguments, Mr. Judd grounds the following table of—

"*The Seven Orders of Venereal Eruptions.*

Order I.

EXANTHEMATA.

1. Exanthema roseolum.
2. ——— puniceum.

Order II.

PAPULÆ.

1. Papulæ elongatæ.
2. Lichen exanthematicus.
3. ——— racemosus.
4. ——— solitarius.
5. ——— circumscriptus.
6. ——— vesicularis.

Order III.

VESICULÆ.

1. Herpes solitarius.
2. ——— confertus.
3. ——— circinatus.
4. Rupia simplex.
5. ——— prominens.

Order IV.

PUSTULÆ.

1. Ecthyma phlyzacium.
2. ——— psydracium.
3. ——— magnum.

Order V.

MACULÆ.

1. Spili coccinei.
2. —— cruentati.
3. —— cuprei.

Order VI.

TUBERCULA.

1. Phymatosis ovata.
2. ——— annulata.
3. ——— verrucosa.*

Order VII.

SQUAMÆ.

1. Lepra venerea.
2. Psoriasis.
3. ——— palmaria."

We see no material objections to this classification of venereal secondary eruptions. Yet it does not comprise all their known forms.

1. In peculiar constitutions, secondary eruptions of a vesicular and pustular character follow venereal infection, and those eruptions admit of arrangement, either under the heads of rupia or ecthyma. But not unfrequently ulcerations occur on the integument, which cannot fairly be termed ei-

* "The word venereus may be added after each genus, to distinguish them from others in the arrangement of Cullen, etc."

ther rupia or ecthyma at their commencement, and differ materially from them in their progress. The ala nasi, for example, in an unfortunate gentleman now under our care, became tumid, red, and painful. A minute spot of ulceration formed on the swollen part. The ulcer deepened and spread. When it had nearly destroyed the ala, it began to heal on one side, whilst it extended on the other, and thus a creeping foul ulceration was established. A similar sore formed on each leg, though, in these instances, the ulceration commenced with a vesicle, the fluid in which became turbid and partially dried. We mention the case as an illustration only of what not unfrequently occurs. Creeping or serpiginous ulcerations, of a phagedænic character, may constitute distinct sequelæ of venereal sores, and, as they cannot be justly considered either pure rupia or ecthyma, they deserve a niche by themselves.

M. Rayer, who offers a very tolerable account of primary and secondary syphilis, admits, in his enumeration of the latter, "secondary cutaneous ulcers."

2. There is a form of tubercle of which, so far as we can perceive, no notice is taken by our author. It is the subcutaneous tubercle. No doubt this is usually a cachectic, that is, a mixed symptom; but we have seen it occur where mercury had not been taken, and where it had all the characters of a pure secondary affection.

3. Baldness from syphilis, and alterations of the nails, which may be considered strictly as cutaneous alterations, are not included in the present classification. Neither is common—the former, indeed, uncomplicated with venereal eruptions, is rare. Yet they do occur, and they should not, therefore, be totally excluded from the pages of a treatise on the venereal disease.

Such appear to us to be the principal omissions in Mr. Judd's table of the seven orders of venereal eruptions. Candour must admit that they are not very serious. Perhaps it may be doubted if he has not unnecessarily multiplied the varieties of the particular kinds of eruption. That lichen, for example, takes on the exanthematic, racemose, solitary, circumscribed, and vesicular characters, is true; but it is probable that minute and ingenious observation would distinguish many more, and the tendency, of late, has been to swamp these variable and indefinite distinctions between the same eruption in different cases, or at different times—distinctions which often perplex rather than instruct, and insensibly, perhaps, but frequently, lead the mind from the consideration of general and important, to minute and trivial particulars. We leave this, however to the taste of the individual practitioner, and, possibly, it is better to be too minute than too superficial.

If the inexperienced surgeon casts a glance on such a classification as the one before us, he perceives how numerous, varied, and different syphilitic eruptions are. They occupy the majority of the orders, in which cutaneous diseases in general can be included, and they form a study whose difficulty is fully proportioned to its interest. If he reflects that these eruptions form but a portion of venereal symptoms—that the alterations of the throat are nearly as numerous as the eruptions, and the diseases of the fibrous and osseous tissues as complicated as either, and more serious—he will ask himself, if possessed of intelligence and candour—"Is it right that I should

devote no more time to the investigation of this malady, than I see my fellow-students do? is it justifiable that, seeing little, reading nothing, of a complaint so mysterious and so severe, a complaint which, I perceive, forms a study in itself, I should go into practice, determined to treat what I am not by any means acquainted with, and prepared to exhibit blindly, in a dangerous disorder, an equally dangerous remedy?" Such is the question that many a young practitioner must have asked himself. What has been the answer? Let London consultations—broken constitutions—and mutilated bodies tell. We return to Mr. Judd.*

I. Venereal Exanthemata.

"Rashes, of various extent and intensity, formed in patches, differently figured, and of every shade from delicate pink to rose red, or deep crimson, at times a little risen, and now and then accompanied by fever and redness of the fauces; various in duration, and in most instances followed by slight cutaneous desquamation, but not to the extent usual after scarlatina. Caused by a morbific poison circulating in the system, they generally appear about nine weeks after contamination, occur both with and without bubo, and are non-contagious." 228.

The order of exanthemata contains, as our readers will see by reference to the table of classification, two genera—1, exanthema roseolum; and, 2, exanthema puniceum.

1. *Exanthema Roseolum.*

"Exanthema roseolum is a diffused efflorescence, or rash, preceded by slight fever and pains in the limbs, situated beneath the cuticle, formed by increased determination of blood to the vessels of the rete mucosum; and at times with slight extravasation, which, presenting its colour through the partially transparent cuticle, gives an elegant pink or rose colour, its intensity varying in different individuals, from the slightest perceptible tint, to the deepest roseate colour. It has no set pattern, and is irregular, and separated by larger portions of natural skin. The papillæ are not generally raised, as in scarlatina or rubeola; and, unlike other exanthemata, this eruption commences on the abdomen. That this appearance is the effect of an increased quantity of blood in the cutaneous vessels, and a slight extravasation of coloured serum, at times, is tolerably proved, by the circumstance of a little pressure driving the fluid from the red portions, and the skin immediately resuming its natural colour, and from the tint recurring in the part so soon as the pressure is removed." 229.

Mr. Judd judiciously observes, that this not unfrequently precedes other venereal eruptions, and is itself often anticipated by pains, especially, he thinks, in the legs, below the calf. It is usually, also, so far as we have seen, ushered in by symptoms of pyrexia, which occasionally are severe, and attended with inflammation of the thoracic, mucous, or serous membranes. The same is the case with lichen, and we quite agree with Mr. Judd in the opinion, that a strong relationship exists between this latter and the venereal

* We shall not enter fully on the subject of secondary eruptions at present, as we anticipate the occurrence of a better opportunity anon.

exanthematous eruptions, although Rayer, we observe, dissociates them altogether.

Mr. Judd relates a case in which a burrowing sore, in the fold of the prepuce, was succeeded by "exanthema roseolum," which itself was followed by papulæ, iritis, and, finally, by ecthyma. It is not necessary to pause for the details. We therefore proceed to the second genus, christened—

2. *Exanthema Puniceum, or Puniceous Patch.*

Mr. Judd uses this new term to designate a crimson-coloured venereal eruption, consisting of very numerous and distinct patches, of much more intense colour and set pattern than the roseoloid eruption. By carefully picking out from the midst of other passages the following, we may present a consistent description of this affection.

So far as Mr. J. can determine, the sores producing the "puniceous patch" arise as vesicles. But if we reflect how many venereal sores commence as such, and how many vesicles on the generative organs never become true venereal sores at all, we shall not feel disposed to attach much importance to this observation.

The puniceous patch seldom begins later than about nine weeks after absorption of the poison. Such is the statement of our author, but it must be evidently received cum grano salis, for how are we to determine in many cases when absorption actually takes place?

It is usually ushered in by febrile symptoms, and pains in the shoulders and hips, whilst it is itself the occasional precursor of other eruptions, as lichen, herpes, and so forth. It is frequently attended with redness of the fauces or sore throat. It is at times the effect of poisonous substances taken into the stomach, such as muscles, copaiba, &c. With something like inconsistency, Mr. Judd, after observing that it may follow the exhibition of copaiba, declares that it differs much in size, elevation, and character from any eruption that he finds described. Now the eruption from copaiba, poisonous shell fish, &c. is sufficiently familiar, and has been described under the name of urticaria febrilis—while the syphilitic exanthematous eruption is familiar also, and is commonly called syphilitic roseola. But to proceed. The puniceous patches are small, and seldom form a continuous eruption. The centre of each patch is raised, its form is usually an irregular lozenge or hexagon, and although the most raised patches may in their centre approach an oval, yet this is still set upon a lozenge-shaped base.

"On sliding the hand over the cuticle it detects a raised irregularity of surface, corresponding to the irregularity of the shapes of the patches, which are also perceptible to the eye, as being distinctly raised above its less elevated crimson base. Each patch both feels and looks as if lymph had been thrown out upon the face of the absorbent rete mucosum; and I am next to certain that this effusion is given out between the rows of what are called papillæ, from the following accidental experiment. Whilst modelling an eruption, I cut a slice of cuticle off the end of my ring-finger, and very accurately laid bare the cutis vera, when a watery serum slowly issued in minute drops upon the newly exposed surface. These I frequently dried off by touching them with bibulous paper, and saw, through a powerful lens, fresh drops issue from between the rows of papillæ in the cutis, and lodge in lines correspondent to the natural folds in the cuticle and cutis; and whenever their surfaces became overloaded to confluence, the minute drops of fluid invariably closed inwards from the cir-

cumference, and the red liquid formed lozenge-shaped patches on the rete mucosum, and only required the cuticular covering to complete their exact resemblance in shape and shade to puniceous patches. This squarish, or lozenge-like, form is much indulged in by nature, for the bundles of fibres composing many of the muscles are of this form, as may be seen in those of the round of beef, where a cross section of its flesh shews the fact on a large scale. And such is the true cause of the form of these red patches, their shape being in some measure determined by the deep sulci that divide the cuticle and its adjoining membrane into triangular, lozenge-shaped, and polygonal eminences." 239.

Mr. Judd, in his declaration that lozenge-like forms are greatly affected by nature, has perhaps in his recollection the opinion of the famous Sir Thomas Browne, that Nature rejoices much in quincunxes. Sir Thomas carries out this theory in his Garden of Cyrus, and Mr. Coleridge has pleasantly remarked that "he finds quincunxes in heaven above, quincunxes in earth below, quincunxes in the mind of man, quincunxes in tones, in optic nerves, in roots of trees, in leaves, in every thing." So we see that old Sir Thomas has anticipated Mr. Judd.

The puniceous patch runs a variable course in point of time. Its stains rarely last beyond four weeks, but it leaves on its decline "a feel like thickened, raised, patches of skin." As it is often ushered in by fever, it is not surprising if pains in the chest, hoarseness, inflammation, in short, of the mucous or the serous membrane should occasionally be developed. It sometimes ends, according to our author, in consumption or ascites. Both the pleurisy at the commencement, and the sequelæ we have mentioned, cannot be regarded as any thing more than accidental complications or results. Fever being set up, inflammatory affections will occur in particular habits.

Such is the description offered by our author of the "puniceous patch." Eight cases are related in illustration. In one it followed a vesicle upon the penis. In the second, it succeeded a round sore upon the penis and suppurating bubo. In the third, it was consecutive to a flat superficial sore, which commenced as a vesicle. In the fourth, it followed a "large excavated ugly sore," which left on healing a hard cicatrix, and a dull red stain. In the fifth, it followed a sloughy sore, and articular inflammation and effusion. In the sixth it followed "a suspicious-looking, sloughy little sore," surrounded by induration. It was succeeded by lichen. In the seventh, the primary symptoms were "an abrasion, and a tender red syphilitic wart." The abrasion became a foul sloughy sore, which actually sloughed and gave rise to much hæmorrhage. A bubo in the groin suppurated, ulcerated, and "sloughed frightfully," leaving "a very large chasm." Ecthyma appeared—the puniceous patch followed—and again ecthyma came out.

The eighth case may usefully receive a more particular notice.

II. Papulæ.

These form the second order of our author's classification. He is extremely anxious to shew that there is not an abrupt interval between the exanthematous eruptions and papulæ. This is so natural and just a view

that none can consistently object to it. Mr. Judd, however, appears to anticipate some cavilling, and he points out the gradual manner, in which the two eruptions run into each other.

"Take," he says, "the delicate exanthismous skin; place next it the slightly marked puniceous patch; let that be followed by an instance of the more intense and higher raised variety of the same eruption, and lastly by puniceous patch set with enlarged papulæ, and we have then, from a flat surface, absolutely arrived gradatim at a miniature representation of clustered lichen, which is going a step beyond what we aimed at, viz. simple lichen. The gradations we have just traced is like to those of a traveller starting upon a plane, rising by a gentle ascent, and arriving at the summit of a mountain: and as if nature were more than ordinarily anxious to connect all the various shades and varieties in links, I have of late discovered (and I believe I am the first that has done so), that puniceous patches on the scrotum (a case of which kind has just been given) at times actually have minute papulæ set on them, and even, though less frequently, vesicles upon the lozenge-like puniceous bases; a circumstance analogous to the appearance of miliary vesicles amongst rashes of rubeola." 277.

Thus the venereal roseola is the plane, (we suppose a horizontal one)—the puniceous patch, the gentle ascent—and when we climb the papulæ, we reach the summit of the mountain. As we said before, we think the exanthematous eruptions and the papulæ slide into each other, and we cannot quite agree with Mr. Judd when he declares, that, at first sight, they appear "as widely different and as unconnected as the Zenith and the Nadir."

The order Papulæ is divided by our author into two varieties—Papulæ Elongatæ, and Lichen. The former, he believes, to be a mere enlargement of an originally formed part of the skin, and the latter to be altogether a new production.

1. *Papulæ Elongatæ.*—We hope that the following description will prove clear and intelligible to our readers. We confess ourselves unable to put it into our own language, and lest we should unwittingly misconceive our author's meaning, we offer it in his.

"The papulæ elongatæ appear to be merely the natural rough asperites, or papillæ, as they have been termed, of the cuticle enlarged and distended in wheals during the excitement caused by one kind of venereal virus, (for doubtless the cuticle has vessels that carry albuminous fluid, vide preparation before alluded to in the museum of St. Thomas's Hospital) attended by partial fulness, from turgescence of the cuticle, and inflammation of the parts immediately beneath it; forming a sort of red cutis anserina. These little red projecting bodies, I might mention, can occasionally be traced over the tunica conjunctiva, as in the case of C—— S——d. A few solitary lichen frequently came out about the same time, and have afforded a good opportunity for comparison. This venereal eruption is accompanied by sore throat, and terminates in furfuration, but is a very scarce form of cutaneous affection.

My belief, as to papulæ elongatæ being the produce of venereal inoculation, is most happily strengthened and borne out, not only by the cases given, but by the new method just discovered in France, of causing enlargement of the papulæ by inoculation (*with lymph taken from a scarlatina papule*); at all events proving that the secretion from papules has power to engender crops of enlarged papules." 280.

Two cases are detailed.

In the first, a sore upon the prepuce and corona glandis, occasioning adhesion of them, was followed by enlarged and indurated glands in the groin. Papulæ elongatæ succeeded, with inflammation of the conjunctiva, which was covered with the eruption, and dimness of vision. When the eruption became less florid, solitary lichen was discernible. Finally, the hair fell off. It was necessary to give mercury.

In the second case, a man had connexion on the 1st April, with a woman of the town. In three days afterwards, there was bubo in the right groin, but Mr. J. could find neither sore nor urethral discharge. On the 15th, the glands in the left groin were enlarged. On the 25th, a small ulcer was first visible by the side of the urethra. On the 6th of May, it had surrounded the orifice, and was cupped, foul, and sloughy. On the 12th, the sore had ceased to spread, and by the 23d it was healed. The buboes suppurated. On the 30th, there were developed papulæ elongatæ, with lichen, and diffused redness of the fauces. On the 5th of June, nocturnal pains were added. He was now put on mercury, and gradually all the symptoms passed away.

2. *Lichen Venereus.* Mr. Judd thinks that the average time at which venereal lichen makes its appearance is between the 12th and 14th week after contamination. He thinks also, that "in all probability," it is the produce of a pimple which may, by suppuration of its apex, assume the appearance of a vesicle, pustule, or ulcer. Perhaps much of conjecture, and a little theory break out in the preceding suppositions. Many sores of different characters commence as pimples, and certainly various eruptions follow them.

Mr. Judd has expended much labour and consumed not a little time, in endeavouring to distinguish the exact seat and structure of papulæ. The conclusion at which he seems to have arrived, is, that, during febrile excitement, and increased cutaneous plethora, small portions of coagulable lymph are *deposited* here and there by vessels immediately upon the rete mucosum, but under the cuticula externa, which increase and form lichen; (and thus far vessels carrying red blood have already been traced). The semi-transparent cuticle admits of the red mark caused by these deposits being seen through it; ultimately the lichen advance and project, and a little red *effusion* taking place, stains the rete mucosum, and forms the areola surrounding its base.

This new body or lichen is soon endowed with sufficient vitality to inflame by external friction or constitutional irritation, and becomes capable of vesicating or even suppurating. When the former process takes place, a straw-coloured lymph is given out at its apex, between the coagulated lymph of which the lichen is formed, and the delicate thin cuticle by which it is covered.

He proceeds thus to describe the declension of the eruption. The purest forms of lichen seem to decline by merely losing their vascularity; the over-distended cuticle at the summit throws off a dead scale; and in some cases the small portion of concrete lymph escapes through a little breach in that membrane; the absorbents gradually remove the coagulated lymph that constituted the greater part of its bulk; the rete mucosum forms a new portion of skin; and after a time there only remains a red stain; and before

the latter disappears, it becomes white in its centre; and lastly, leaves a pit or depression, that may be both felt and seen in the cutis vera, through the epidermis, marking out the place where the eruption had been situated.

Syphilitic lichen differs from common lichen in the greater disposition on the part of the former, to display large papulæ, containing serous, or sero-purulent fluid, especially where exposed to friction, and on parts covered with hair. Venereal lichen is consequently more prone than the common form to scab and crust.

"In four or five months a second set of lichen not unusually follows the first, (the latter I denominate secondary or deuteropathic lichen,) and if it is of the solitary form, it is almost always of larger character than the primary or first eruption is,—fewer in number, disposed to be vesicular, often contains opaque lymph, forms incrustations, and frequently is blended with favi. The eruption is often set upon the skin generally in the form of triangles in rows of threes or fours, and only a cluster here and there; and lastly, these secondary eruptions decline more slowly, but yet more completely than primary lichen, but they leave the party more subject to pains in the limbs." 293.

Mr. Judd has observed that a person who has previously had lichen solitarius is very apt to have it succeeded by lichen circumscriptus or lichen racemosus. The first eruption of lichen is always ushered in by pyrexia, and comes out quickly; the secondary attacks are slow, and almost unattended with fever.

Syphilitic lichen often runs into pustular forms of eruption, and is not unfrequently followed by genuine ecthyma. In one case related by Mr. Judd, it degenerated into tubercles.

Ten cases are related. We shall glance at one or two. We do not think it necessary to illustrate the general characters of lichen, because surgeons must be pretty familiar with them. We therefore select the cases on account of some peculiarities that they present.

CASE. *Sore—Solitary Lichen—Tumor on the Os Frontis—Epilepsy.*

A man, æt. 21, perceived, nine days after connexion, four pimples on the corona glandis; they ulcerated deeply, and caused much destruction of the glans and hæmorrhage. He took much mercury, which did not make his mouth sore. Phymosis and much loss of substance of the glans resulted. He remained well for ten months.

In May 1828, he was attacked with pains in his shoulders and knee, sore throat, and pleurisy; which were relieved by antiphlogistic treatment. In June he had pains in the limbs, swollen feet, and lichen. In July a swelling, containing fluid, formed over one parietal bone. On the 18th he had an epileptic fit. He stated that he once formerly had a similar one, after having been in a violent passion. Some serum and blood were let out of the tumor, after which it gradually subsided. It was subsequently divided to the bone, but this was not found diseased, nor did it exfoliate. Early in August the lichen was desquamating. On the 8th, 25th, and 27th, he had a fit, and afterwards they were repeated. From the latter end of June to the 25th of July he took mercury in one shape or other. In September he was put on the nitrate of silver. In November zinc and tonics were ordered. But though the venereal symptoms subsided the epilepsy did not.

It is, of course, difficult to determine on what the epilepsy in this case

depended. One thing, however, is certain—that the case was, in the first instance, mismanaged. When it has been so, it is impossible to predict what strange consequences may ensue in peculiar habits.

CASE—*Pustules—Abscess in the Urethra—Lichen Solitarius and Lichen Circumscriptus.*

G. S. had, on the 1st September, 1821, urethritis of an inflammatory character. Three days after connexion, a pustule formed on the dorsum of the penis, attended with slight enlargement of the inguinal glands. Then came a swelled testicle. On the 10th, a few more pustules formed on the under surface of the penis. There was much pain in the urethra on micturition, and, on the 24th, the mucous membrane was seen bulging into it, the body of the penis opposite this point being swollen. On the 25th, a probe, passed into the urethra, indicated that the protrusion fluctuated; it was therefore punctured through the urethra, into which a quantity of pus was discharged. On the 27th, another similar abscess was punctured, and, on the 28th, there was no pain in making water.

It will be remembered that the original sore was stated to have been a pustule on the dorsum of the penis, which caused slight enlargement of the inguinal glands. Afterwards a few more pustules formed a second sore on the under surface of the body of the penis; and shortly a third set formed another sore on the pubes, which were soon covered with thick scabs; and on the latter being detached, they each left ulcers as large as a shilling. In October the sores extended by ulceration, and it was December before they healed. In March, an eruption of lichen gradually came out, and the cicatrix of the primitive sore on the penis re-ulcerated, and formed small pustules once more.

He was now directed to rub in the mercurial ointment. This was in May, 1822. In February, 1823, his ailments were all gone. But they returned in May, when a second eruption made its appearance, with the characters of lichen circumscriptus. The following passage concludes the case.

"June 28th.—The whole of the eruption is desquamating. He has had no other venereal symptom, nor has he lost flesh, or suffered from not having mercury used in the cure of his more early symptoms, though doubtless they were caused by the pustule on the penis, which arose from the venereal contamination." 307.

Mr. Judd justly observes, that mercury was not employed in this case for the early symptoms, and he appears, if we understand the tenor of his reflections, to think that the result is not discreditable to the non-mercurial treatment. What Mr. Judd's idea of suffering from syphilis may be, we cannot take upon us to determine, but undoubtedly it must be of a liberal complexion. To us, the present patient seems to have smarted pretty severely. The primary sores commenced in September, and did not heal until December—upwards of three months. Three months after that, secondary symptoms were developed, and for eleven months more he was not well enough to discontinue regular treatment. He was then reported well; but again, before three months had elapsed, a syphilitic eruption re-appeared. We are plain folks, and we do think that the continuance of syphilitic symptoms for a year and a half, must be looked on as constituting rather a bad case.

The army surgeons, as our readers well know, have been the most active

in pursuing the non-mercurial treatment of lues. The temptations to let the disease take its course are considerable in the military hospital, for the patient is much under control, and the surgeon may "do what he likes with his own." We cannot be surprised if the opportunities for experiment have been seized by Mr. Judd, nor can we be astonished when we find in his book that such practice was attended with its usual results, protracted symptoms and uncertain cures. Take, for example, the next case.

CASE.—*Sore and Bubo—various Eruptions—Death.*

N. W. æt. 25, had a "suspicious-looking sore" after connexion, with bubo. He was feverish. His bowels were cleared, and he was ordered—

Ung. hyd. ʒj. *omni nocte illinend.*

Two days afterwards, Jan. 3, there was more pyrexia. He was directed to take Dover's powder and antimony; but whether the mercury was continued or otherwise we are not informed. The bubo suppurated, the febrile symptoms gradually disappeared, and on the 14th, one *fortnight* after the commencement of the mercurial course, the sore and bubo had both healed, the former, however, leaving much induration. He seemed otherwise to be well, and went "from under treatment."

Here was a patient with a "suspicious" sore and bubo, subjected to a fortnight's course of mercury, if not to less. The sore left induration behind it. Under such circumstances, the experienced surgeon would naturally anticipate the occurrence of secondary symptoms.

On the 2d of March, the patient was attacked with lichen circumscriptus, pain in the right hip, and pyrexia. Purgatives and salines were ordered.

10th.—The pain in his hip is very violent. A large portion of the eruption is becoming brown and desquamating: but there is here and there a fresh lichen out. The patches represented were situate upon the side of the chest, the circle of vesicles upon the chin, the red maculæ on the cheek, and the solitary lichen upon the body and arms. His tongue is very white, and he is still feverish." 309.

No mention is made of mercury being prescribed, yet it must have been so, for, on the 18th, we are told that the mouth was sore; on the 2d of April, that the action of mercury was gently kept up; and on the 20th, that, being sick and purged, the mercurial ointment was left off.

27th. "He has continued the mercury with the exception of two days, when he was unwell, and took a purge.

28th. He has again become giddy, and is much purged.

Omittr. Ung. Hydrargyri.

Olei Ricini, ʒiij. statim sumendæ." 310.

In the night of the 28th, he sat in his shirt in a cold privy, and next morning he was seized with symptoms of peritoneal inflammation. They made head in spite of the treatment resorted to, and on the 1st of May he died.

Dissection. The peritoneum was found highly inflamed, secreting pus and serum in large quantity. The omentum, stomach, and intestines, were glued together by coagulated lymph, and flakes of it were found floating in the fluid contained in the abdomen.

The eruption remained visible, though a little paler, and its bases left

well-defined stains of red lymph in the rete mucosum and upon the cutis vera.

We see in the preceding case the disastrous consequences that may follow an inadequate course of mercury in the first instance. The fatal peritonitis was, of course, accidental; the occurrence of the secondary eruption was not. When, after an irregular or imperfect course of mercury, a sore leaves decided induration behind it, we may be tolerably sure that some mischief will ensue.

III. Vesiculæ Venereæ.

These constitute the third order in Mr. Judd's classification. He thinks that vesicles not unnaturally follow the papulæ, and we agree with him. Vesicles, it is well known, are very apt to run into pustules, the inflammation not being limited to the formation of serum, but occasioning the secretion of a more puriform fluid. This is the case with venereal, as with other vesicular eruptions.

Mr. Judd presents us with no consistent or detailed account of the venereal vesicular eruptions. Having stated that they exist, and offered a few remarks on the anatomical characters of vesicles, he falls back upon his cases, which constitute both text and illustration. This is convenient for an author, for it saves him the trouble of collecting his ideas, and of drawing conclusions from the facts that he has witnessed. But, in proportion as the plan diminishes the author's labour, it augments the reader's. He toils through many cases, perhaps obscurely worded, and, unless he is gifted with the sagacity of a critic and the practical knowledge of an experienced surgeon, he sighs to find how difficult it is to arrive at any satisfactory or definite opinions.

Vesiculæ venereæ, says Mr. Judd, generally appear from two to three months after contamination, but it is almost impossible to make out the precise time required, from our not knowing the exact moment of absorption. The eruptions seem to consist of these varieties; viz. herpes solitarius, confertus, circinatus, rupia, and rupia prominens venerea. This concise account of herpes is illustrated by seven "very select and interesting" cases. Of these seven cases, four are specimens of herpes solitarius—two of herpes confertus —and one of herpes circinatus.—Of the first four cases we shall notice two, because they serve to shew the very different effects that inoculation with the very same poison will produce upon different individuals.

Case.—*Vesicle on the Penis—Ulcerated Sore-Throat—Pains—Eruption of Vesicles.*

R. D. æt. 32, Aug. 1, 1832. He has a circumscribed, round, elevated surface, or red pimple, with a flat summit, on the glans penis; it does not contain any fluid. This raised spot was first observed five days after connexion, and it seems to make very slow progress, if any. He has urethritis, and got the ailments from a prostitute in —— Street, who also gave the disease to the patient whose case will follow. The slightly raised pimple flattened down, and appeared to subside without any breach of skin: but still there remained a crimson stain of about this shape and size—O. It was brownish in the centre, and looked as if it would desquamate.

On the 28th of September, the red stain appeared to remain in statu quo. But the patient did not, for he was feverish, with pains in the shoulder and elbow, and had an ulcerated sore-throat. Salines and an acid gargle were exhibited.

On the 30th, an oval vesicle appeared upon the thigh, and another on the side of the trunk. On Oct. 1st, various parts of the body and limbs displayed oval, slightly elevated red patches, each of which seemed formed of three or four cellules, filled with a brownish lymph. He had several papulæ and incrustations on the hairy scalp.

Papulæ continued to form for some days, lymph being subsequently secreted in their apices. They slowly increased in circumference, and the lymph then dried into transparent brown scales. The bases of other papulæ became sores, on which incrustations formed and spread.* The flattened red round surface that had originally formed upon the penis, now began to throw out a little lymph from beneath the scale that had for some time covered it.

The ulcerations resulting from the eruption appear to have been severe. On the 14th, the pimple on the penis had formed a clean sore.

"19th.—There are three or four other red protuberances, that are still throwing off thin scales and a little serum, and are likely to ulcerate just in the same way as some of the larger ones have done." 327.

About twenty ulcers were thus formed. They gradually cicatrized, and on the 7th of November we are told that they were just well. On the 9th, two days after the sores are said to be just well, the report states that "his health is re-established," and in this way the case terminates.

Before we proceed to the next, we would offer a remark or two on the preceding. We presume that the patient was a soldier. No private patient would consent to let his symptoms run on as they did here, without any mercury being employed. This is a fair instance of what usually results, and of what may be expected from the non-mercurial treatment. Protracted ailments—an uncertain cure, are most commonly its consequences. We do not think that Mr. Judd can fairly report the case as cured, when the ulcerations left by the eruption were barely healed at its nominal termination. We all know how liable secondary eruptions are to relapse, even under favourable circumstances. In the present case, the cure is not worth a farthing.

CASE.—*Sore and Bubo.*

Jos. M., Aug. 31, 1832.—"He has a sore that came as a pimple five days after connexion, and he also has a bubo. These ailments were got within twenty-four hours of the same period, and from the same woman that gave disease to Robert D——d: but he neglected them until now.

Pulv. Jalapæ Comp.
Hirudines x. ad ing.

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* This is the manner in which we would render the passage in the text:—"The incrustations are increasing on the other sores that were the bases of some of the more opaque papulæ." Our author's inexperience in writing produces much confusion of language, which is not corrected by the useful merits of precision of ideas or methodical arrangement.

Lotio Plumbi Acetatis dil.
Inf. Sennæ, c̄ Mag. Sulph.

September 1st.—He has had many stools, and the groin is less inflamed.
6th. The groin feels as if fluid had formed in one of its glands.

Empl. Lyttæ ad inguen.

12th.—The fluid appears to have been absorbed, and the sore on the penis has healed.

15th.—He remains well. This case would not have been deemed worthy of detail, had it not arisen from connexion with the very same woman that caused all the disease in the preceding rare and curious case: but how are we to account for Robert D——d having secondary symptoms? and Joseph M——ge, who really was contaminated from the same source, escaping with sore and bubo only? I conclude he had but a local effect produced by the poison. There is another very curious coincidence exhibited by these cases: *e. g.* M——ge's pimple commenced on the fifth day after connexion, and so did D——d's; the former got gonorrhœa, but the latter escaped; and M——ge had an enlarged gland, whilst D——d had none. These latter circumstances must depend upon some peculiarity, as to absorption, or of constitution in the party inoculated." 329.

The sticklers for the separate existence of various venereal poisons find it difficult to explain such cases as this and the preceding. Why should different forms of sore, and different constitutional contaminations, ensue from the same infection? Nothing, however, is more common. Two men, having connexion with the same woman, will comparatively seldom contract the same form of disease. Our author's cases are rather queer. In the present instance, we are told on the 12th that the sore is healed, and on the 15th that the patient remains well. Now as secondary symptoms do not usually occur in three days after the healing of the primary sore, we presume that the case, so far as it goes, is not conclusive against their appearance. Of course we can only judge of the case as it stands. Our author does not mention his having seen the patient since, and we must, therefore, presume that he has not.

Two cases of "herpes confertus" are detailed. We know not that they possess any other useful qualification, than, by shewing the effects of injudicious treatment to teach us what we ought not to employ. For example:

Case. A man, nine days after connexion, found two circular clusters of vesicles upon the penis, which gradually formed sores. His mouth was kept under the influence of five grains of blue-pill nightly for three weeks, when the mercury was discontinued. The sores had healed, but left indurations behind them. Seven weeks after this, an eruption of vesicles appeared upon the body. Then followed sore-throat, pains in the limbs, two other attacks of vesicular eruption, inflammation of one epididymis, violent nocturnal pains. Eight months after the commencement of the disease he is reported well, although the report of the previous month stated that the eruption was not gone.

Thus we see a case drag on for eight months, and then terminate in a dubious way. But observe the circumstances. The primary sores were treated by a very short and inefficient course of mercury, and indurated cicatrices were left. Who can wonder at such a result under such management? Who can be surprised at the idea which prevails, that in the army

the treatment of syphilis has become neither one thing nor the other—just enough mercury being given to obscure the symptoms, and to render every indication perplexed. We are no advocates for the non-mercurial treatment of lues, because we have seen and daily see its miserable failures. But we would rather give no mercury at all than give it in such a way as to—"keep the word of promise to the ear," and keep it to the ear only.

In the very next case a sore was left with "extreme induration." The patient went from under treatment apparently well, but returned four months after the commencement of the complaint, with "a set of opaque vesicles almost like ecthyma." He "afterwards finally recovered."

Herpes circinatus is exhibited in a case as illustrative as the preceding of the benefits derivable from the imperfect exhibition or total neglect of mercury.

Case. A man had a round thick black scab, covering a sore on the dorsum penis. It commenced three days after a suspicious connexion at the back of the Bank.* Poultice and jalap were the treatment. The scab separated and left a sore to which calamine cerate was applied. Herpetic vesicles now came out on another part of the penis, and in a few days another cluster followed. Three weeks after the commencement of the complaint, we find the primitive sores healing fast, but no other treatment than what we have mentioned is stated to have been employed. In six weeks more roughness and tenderness of the tongue and sore throat appeared—then mottled redness of the skin, and penis—then herpes circinatus. At the end of six months we are informed "his throat is well, nor has his health been much pulled down by this long-continued malady, and he now is in strength and comfort."

Mr. Judd remarks that he purposely abstained from the use of mercury for the eruption, in order that he might be enabled to watch it. But that is no reason why he should abstain from its employment for the primary affection. Rational experiments are very proper. But desultory and arbitrary ones are seldom serviceable. They teach the observer little—establish no general inductions—and entail on their unhappy object, be he man or brute, much unnecessary suffering.

We have before remarked that Mr. Judd, being evidently unaccustomed to writing, labours under the disadvantage of not being always perfectly intelligible. But the obscurity that often clouds his pages cannot always be laid to the fault of language, but is at times attributable to the ideas which it conveys. It is difficult, for example, to determine precisely what our author means, with respect to the nature of primary and secondary herpetic vesicles.

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* The following observation of Mr. Judd's is naïve. "I have attended several patients that got contaminated by the same women (their venereal histories are herein detailed), and their primitive sores led to secondary eruptions in every instance, which is rather an unusual circumstance." When we see, as we shall anon, how this case was treated, and conclude, as we suppose we may, that other similar ones were similarly managed, our surprise at the occurrence of secondary symptoms will materially diminish.

"Persons," he remarks, "that long have been subject to gleet, on the discharge ceasing, frequently at these intervals become affected with herpes præputialis, or labialis, at times, and returns of the discharge, or of the eruption, alternate with each other during years; of the former I have now seen many instances; one that has lasted a dozen years, and without any sufficiently evident reason. Catching cold seems to be a common exciting cause (though not perhaps the proximate one) of a similarly formed eruption upon the lips. The too long use of the same pocket-handkerchief certainly produces the latter in some; whilst others imagine that they trace the former to deranged bowels. This is almost as frequently met with on the body of the penis, or on the scrotum or thighs, as any where else; indeed, after its raised base and itching vesicles have once attacked the prepuce, or penis, it as frequently afterwards comes out on the thighs, or buttocks, or other parts, without recurring to the penis also; and, in a few rare cases, numerous patches appear over the whole body; such things happen, and, as they are scarce, some such cases have been placed in the following pages." 332.

Herpes præputialis, herpes labialis, sores commencing as vesicles, and vesicular eruptions, are all grouped together, and, for aught that we can determine, are set forth as depending on much the same causes. Yet those causes, though apparently dissimilar, would seem to be regarded with an equal eye by Mr. Judd, who places in the same category intermittent gleet, cold, costiveness, venereal intercourse, and a stale pocket-handkerchief. What practical deduction is to be drawn from these remarks, what deduction is to be drawn from the cases, we confess ourselves quite incapable of guessing. The reader may indeed form *his* conclusion, but probably that will not be the author's. We must hurry on.

IV. Rupia Venerea.

This forms the subject of five pages of description, and of nine cases spread through nearly forty pages more. To the practical surgeon, as to the speculative inquirer, rupia presents a curious problem. The former is anxious to cure, the latter to understand and to explain it. But rupia frequently baffles them both, and whilst the patient goes on from bad to worse the former expends his remedies, the latter racks his ingenuity in vain. We know not if it was fair to expect from Mr. Judd, a careful consideration of this most mysterious of secondary venereal eruptions. He does little save offer a sketch of the phases of the vesicle, and venture one or two statements on its source which we cannot receive without misgiving.

Mr. Judd divides rupia into two varieties:—1, rupia simplex; 2, rupia prominens. The following is his description of the former.

"Rupia-simplex-venerea is generally preceded, like the other variety, by deranged health and anorexia. It commences by red patches, scarcely elevated, almost like stigmata, which gradually come out over the limbs and shoulders, seldom over the body. They extend in size, from a pink serum being thrown out into them, but advance so slowly that only a few of the earliest have taken on vesication by the end of the third week after their appearance. The cuticle over the red spots thickens, and becomes marked by white lines, as if about to desquamate, and gradually it becomes elevated, by a thinner secretion taking place under it. So soon as the cuticle covering these parts is thus raised into a large flat, it becomes of a brownish, or even white hue; for, having lost its

transparency, it no longer transmits the reflected crimson colour of its base: and, shortly after this period, the portions of cuticle covering the various vesicles is every where detached, except just at its edge, and may be wiped off. On removing the thick sanies immediately it may be seen that the secretion is thrown out, not generally by one large raw surface of exposed rete-mucosum, but that it issues from two or three smaller irregular surfaces, previously concealed by the elevated portions of cuticula-externa, lately forming the cap of the flat vesicles. The sanious lymph now dries upon the exposed surface, and forms a dark brown, or almost black, thin plate or scab, often at first lying in a pit below the general level of the surrounding skin; the sore still increasing by vesication at its edge, in the course of twenty-four hours its secretion forms another more extensive thin plate, or scab, under the former; and similar processes are repeated, until it may be observed that each crust is evidently formed by successive layers of dried discharge, each of greater extent than that of the preceding day, so as always to keep the increased size of the scab equal to the increasing diameter of the sore, but in this first variety it never becomes so thick as in the second, or rupia-prominens. The bases are not surrounded by very extensive inflammations, or areolæ. About this stage of the disease, soreness and tenderness are experienced and complained of in the ulcers; and the scabs become softer and are easily detached from the secretion being more puriform; and, ultimately, very foul ulcers are left by them to be filled up by granulations." 342.

Every patch of venereal rupia leaves a large crimson stain.

Such is Mr. Judd's description of the simple form of rupia. It is well enough as far as it goes, but it is little more than a mere catalogue of appearances. The circumstances under which the eruption occurs, the progress of the *disorder*, the results, are imperfectly mentioned farther on, and a mere anatomy of a sketch supplies the absence of copious and accurate description. On rupia prominens Mr. Judd scarcely touches, contenting himself with a reference to Bateman's excellent account of it.

Mr. Judd expresses well grounded astonishment at Dr. Bateman's not even hinting that rupia is at times a secondary venereal symptom, nor remarking its concurrence with ulcerations of the throat. The omissions in question are equally singular and great; and it is remarkable how indefinite the opinions of practitioners with respect to rupia appear to be. Those who are not at all acquainted with the characters of lues, usually look upon this eruption as necessarily syphilitic, and lump it with the mass of secondary symptoms. Other surgeons, on the contrary, influenced, probably, by the statements of Bateman, seem to consider rupia merely cachectic, and seldom or never a syphilitic symptom. As usual, the truth lies between extreme opinions. Rupia undoubtedly follows primary symptoms, when mercury has not been used, and occasionally, though very rarely, it is not attended with a broken-down and cachectic state of system. But in the majority of instances rupia occurs, when the constitutional powers are materially impaired, and especially where mercury has been improperly employed.

Its ordinary accompaniments are sloughy ulceration of the throat—nodes—inflammation of the testis—inflammation of the synovial membranes of a passive character—in short, those symptoms which singly or collectively appear in the cachectic patient. Of cachexia it may be deemed one of the most common and most characteristic features—especially of that cachexia which results from the compound operation of lues and of mercury.

Mr. Judd makes a startling announcement. "Rupia," he says, "and

rupia prominens venerea are the produce of a primary vesicle upon the penis."

In this statement of a fact, we see clearly enough the cloven foot of theory. Because rupia is vesicular, it is theoretically right that from a vesicle it should be derived. But a little reflection will induce us to pause before we attach much importance to so sweeping a dogma. Many venereal sores, of various descriptions, originate in vesicles. The primitive form of most syphilitic ulcers is uncertain, and a papula or vesicle may constitute the commencement of all. Our information on this head is imperfect. If rupia, then, frequently springs from a vesicle, it probably does no more than many secondary eruptions of opposite character *may* do also. But cachexia may be induced by the operation of cold, intemperance, and mercury, in almost any individual affected with venereal primary symptoms. When cachexia is induced, rupia is usually one of those symptoms, the aggregate of which constitute the cachectic state. Here, then, we see that secondary agents (for example, intemperance and mercury) will induce rupia in cases where the primary sore has been of the most opposite description.

The tubercular eruption is perhaps the most opposed to rupia, not only in its own anatomical characters, but in all concomitant circumstances. If rupia necessarily succeeds a vesicle, it is not likely that the tubercular eruption should do so. Yet we have seen the tubercular eruption rapidly converted into rupia by injudicious depletion, and the coarse employment of mercury. We remember well a remarkable case of this sort. A patient had tubercular eruption, enlargement of the tonsils and yellow ulceration in them, and an indurated cicatrix. He was ordered to rub in large quantities of mercury, and to live low. He had been previously accustomed to taking large quantities of ardent spirits, of which he was suddenly deprived. The consequence was, that the ulceration in the throat deepened, and became a sloughy sore—periosteal inflammation occurred on the inner malleolus of one tibia—and the tubercles first scabbed, then ulcerated, and many of them became converted into what could not be distinguished from rupia prominens.

When we look narrowly at our author's statement, it is either indefinite from its general application, or erroneous from its limited: in either case, it is of little value.

"Genuine rupia (he continues) is at times accompanied with cough, as in puniceous patches and pleuritis; and ulcerated legs and swelled ancles are met with in this disease. Wandering pains in the head of the tibiæ and in the ulnæ are not uncommon in the prominent form. Inflamed synovial membrane at times exists in these cases. Chronic enlargement of both testicles is usual, even in patients who never had urethritis. Occasionally the eruption is preceded or followed by tubercles, and in the worst cases by nodes and corona veneris, with exfoliation from the cranium." 344.

The preceding symptoms are such as mark the cachectic state of system. Patients in that state not unfrequently become affected with ulceration of the mucous membrane of the bowels—some become phthisical—others are suddenly carried off by latent pneumonia or peritonitis, or by erysipelas. In the Lock Hospital, every year brings its five or six victims to cachexia. From what we have seen, we should say that the majority die with symptoms of low continued fever, and present after death congestion of the intestinal

mucous membrane, or ulcerations of the clustered glands of Peyer. When the cholera prevailed in the Lock, several patients with cachexia and rupia died of it.

Mr. Judd relates nine cases of rupia. Our space does not permit us to introduce more than one. We select it, because it shews the fatal effects of syphilis on peculiar constitutions.

Case. A gentleman, æt. 27, on Thursday in the last week in May, 1819, after dining with some friends, and taking rather free libations of wine, slept with a young woman with whom he had intercourse three times. In the morning he observed (in his own words) "three heads" on the skin of his penis (probably vesicles), and felt a soreness of the prepuce. He imagined them to be a trifling ailment, and applied goulard wash and cold-cream. On the Saturday following he left Town with some friends, still indulging in full living. On his return, the vesicles (or whatever they were) had become sores, and were extending. On the Saturday following, he went to an eminent surgeon, who pronounced the sores to be chancres. Doubts existed in his mind, and the two women he had been with, and known during the preceding three months, underwent a medical examination, and were both found to be free from disease. This was very properly not considered conclusive.

By the 1st of June* the sores had begun to throw off sloughs, and two others had broken out. On the fourth day their appearance improved, but they still continued irritable, and had a disposition to spread. Under the use of black wash, they were healing fast, when, on the 14th, a bubo appeared in the left groin. He was now ordered—

Ung. Hyd. ʒj. *o. n. infricand.*

On the 26th, another swelling commenced in the glands of the right groin. The mercury was continued, but his mouth was only a little sore, and scarce an approach to salivation ensued. He had an attack of urticaria, and was then ordered—

Pilul. Hydr. gr. iv. *bis die.*

Soon his throat became extremely sore, and, on the 1st of July, the blue-pill was discontinued. Warm sea-water baths at Brighton were resorted to, but they produced excessive lassitude. What the treatment was, it is impossible to determine, for a peculiar confusion distinguishes this, as most of the cases contained in the present volume. It seems, however, that sarsaparilla was given in small quantity.

In the latter end of July, a vesicle appeared on the forehead, and soon ulcerated to the size of half-a-crown; and others came out upon the neck, shoulder, side, and back. The throat continued ulcerated and sloughy. Pains then began in the temples, forehead, and joints, and his weakness was so great, that he experienced a constant lethargic sensation. The unfortunate gentleman now came to town, and placed himself under Mr. Judd's care. He was in a state of great exhaustion—his voice had become nasal and snuffling—and he had patches of rupia—his throat was sloughy and ir-

* This is dated in the Report June, 1820, but surely that must be a blunder. —REV.

ritable, with a vast secretion of mucus and saliva—he had enlarged inguinal glands, anorexia, and could scarcely walk. Sarsaparilla—the oxymel of squill gargle—quiet, and country air, were the remedies prescribed.

In September, the throat was healed, the rupia gone, and the health improving daily.

In November, he went out coursing, and got very wet. In a day or two, his throat re-inflamed, and in a week was covered with a large slough. He recovered from this, with the loss of the uvula.

In the following year, he contracted in the country fresh venereal ailments, followed by such severe secondary symptoms, that he did not live the twelvemonth.

There is no doubt that the venereal poison is infinitely more deleterious to some constitutions than to others. Some persons will contract syphilitic sores repeatedly, neglect them entirely, or perhaps be treated injudiciously, and yet will suffer comparatively little. Others, on the contrary, will become affected with the most aggravated symptoms, or even lose their lives, when the utmost care and the ablest possible management have been employed. There is no complaint in which the truth of the old proverb is so palpable:—"One man may steal a horse, when another may not look over a hedge."

On reverting to the remarks of Mr. Judd upon rupia, we must deplore their meagre and hungry character. Had many of the cases that bloat the volume been omitted, and had more general observations and conclusions with respect to venereal symptoms been presented to us, we should have derived more benefit than we are now likely to do from the study of the book. We pass to the next, the fourth, order of eruptions, the—

Venereal Pustules.

The order of venereal pustules comprises three varieties of ecthyma:—Ecthyma phlyzacium—ecthyma psydracium—and ecthyma magnum.

Mr. Judd, who is always able to discriminate the primary affection giving rise to any secondary eruption, informs us that the venereal ecthyma commences by a primitive small pustule (rarely a suppurating pimple on the penis). As a proof of the correctness of this opinion, he observes that he was so fortunate as to see the primary pustule in several cases. This statement requires a little examination, because the consequences which flow from the position are of more importance than might at first sight be supposed.

Either Mr. Judd intends that his observation should be taken in an unqualified manner, or he does not. If he does not, he should have modified it, and contented himself with remarking that, in some instances, ecthyma is preceded by a primary pustule. If, upon the other hand, he does lay down his position as a general one, he must be sensible that one or two, or even several cases cannot prove it, should any material objections to it exist. We think that there are such objections.

1. In the first place, we have seen lichen follow a primary pustule on the penis. A gentleman came to us with a distinct pustule on the outer prepuce. He was married, but had had connexion with a common prostitute five days

previous to the appearance of the sore. On the day succeeding that appearance we saw it. From circumstances that we need not mention, this gentleman employed no mercury, nor did any thing further than take a little opening medicine, and apply spermaceti ointment to the ulcer. In six weeks after the commencement of the sore, he was attacked with true venereal lichen. For this we put him through a course of mercury, and he perfectly recovered. We merely mention this case en passant. It is clear that, if a papular eruption will succeed a primary pustule, the latter is not likely to be the essential antecedent to a pustular eruption.

2. There is no doubt that a person labouring under any form of primary sore, or secondary eruption, may, if brought into a bad state of health, be attacked with rupia or ecthyma. Of this we every day see instances, and, indeed, ecthyma is most commonly witnessed in the mixed cases, those where mercury or some other debilitating agent has broken down the constitution, and given rise to the vesicular and pustular eruptions.

If, then, an eruption, not pustular, will follow a primary pustule: and, if a pustular eruption may be induced upon almost any primary or secondary affection, by certain debilitating agencies, it is most unlikely, indeed it is impossible, that ecthyma should necessarily follow a pustule. No doubt the same character very frequently pervades the primary and secondary symptoms. But, though this may be partly owing to the specific nature of the particular virus, it is principally, we believe, due to the state of the patient. If primary phagedæna is followed by cachectic secondary symptoms, there is little in that to excite surprise, because the individual must, in each instance, have been in a condition adapted for the extension of ulceration and of sloughing—in fact, must have been in a very bad state of health. We know of nothing in practice more important than the recollection of this fact—that the character of the secondary symptoms, and, indeed, of the primary sore, is mainly dependent on the state of the patient's constitution at the time. This is the great point to be recollected in treatment—this is the only safe principle to guide us. If we are led away from attaching importance to it, by theoretical considerations of the particular sore that determines each particular eruption, we are certain that it will be productive of disastrous consequences to our patients.

The resolute tendency to theory on our author's part is sufficiently obvious in the following passage, which follows hard on the position to which we have already directed attention.

"I am well aware that the patient more generally presents a deep round sore to your notice; but that is only the remains, or ulcer, left on the base by the original pustule, and it seldom can be otherwise; for the pustule, being covered by the thin and delicate skin of the prepuce and glans, in most cases is soon broken up by the patient's clothes, even before he is aware he has a sore; and it probably is the sensation from the raw surface, occasioned by the torn skin, that first draws his attention to the part." 385.

When these observations are scrutinized, they plainly amount to this:—In the majority of instances, we can find no pustule; but it must have existed notwithstanding, because—it *ought* to have done so. Let us insert our author's description of ecthyma.

"The fever ushering in ecthyma commonly arises about fourteen weeks after impure connexion has produced the primitive sore. The eruption is preceded by

some days of lassitude, especially when it is about to break out, and also by pains in the side of the neck, and about the situation of the levator scapulæ and scaleni muscles; likewise at the points of the shoulders, and in the hips and hams, and over the tibiales antici muscles, and down the flat surfaces of both tibiæ. They are most troublesome in the night; and, not unfrequently, this state is preceded or accompanied by a low chronic redness, or inflammation of the mucous membrane; or even by ash-coloured spots (perhaps of ecthyma) in the throat, by cough without expectoration, and a pain in the side, a little before the eruption appears. Areolæ then form gradually in various number, and of a small size, over the forehead, body, and limbs: the face frequently escapes. The red bases have pus secreted in them, and continue to increase during the first few days, until the skin is covered by pustulæ, almost as thickly as in small-pox.

Ecthyma are seen, at the same moment, in various stages of progress, rising, maturating, incrusting, and scabbing. In the commencement, their bases only are surrounded by an areola, or circle, not very extensive; yet, where the eruption is numerous, the whole skin becomes reddened. As they decline, the rings of inflammation around their bases become of a crimson or plum colour; or incrust, or even ulcerate, especially the larger ones, when declining on the legs. Some fresh pustules keep coming out during several weeks; and, even at this late period, the disease may be seen in all its various stages of progress.

The smallest pustules desquamate; the next in size dry off in brown dry scabs; the larger discharge, and have thick incrustations formed upon them that lead to superficial ulcerations, especially on prominent parts, as about the shoulders, scapulæ, and legs · on the latter, some pustules become confluent, and, late in the disease, form ulcers. In persons with slow circulations, very large portions of skin are frequently seen of a deep crimson or chocolate-brown colour; and when the first eruption of ecthyma is gone, it is not unusual to see almost the entire skin of the leg and shin covered with these frightful dusky red stains, marked by numerous dots, depressions, and loss of substance, even down to the cutis, and its cup filled by yellow, sloughy, cellular membrane, with indented edges, and forming, ultimately, deep ulcers. The head, during the eruption, becomes scurfy, or thickly incrusted under the hair from the lodgment of dry pus with exudation, and the hair's growth is materially interrupted, or it falls off and becomes thin." 387.

It will be observed that, in this description of ecthyma, Mr. Judd adverts to the ulcerations not unfrequently consequent on the eruption. Those ulcerations are severe, their characters peculiar, and an accurate acquaintance with their features, history, and progress most important. So far as we can see, the only account our author gives of them is what we have transcribed, an account which is remarkable for its omissions. We would observe that these ulcerations are by no means exclusively the results of ecthyma, but as often follow the vesicular rupia. In venereal cases, the two eruptions are so evidently allied to one another, both in their causes, in the state of constitution which attends them, in the concurrent affections which wait upon them, and in the local effects which they produce, that it is difficult to dislocate them, except in system. On the same individual, vesicles and pustules may be seen together, they run incessantly into one another, and, as we have already hinted, they constantly produce the same sloughy spreading sort of ulceration.

Mr. Judd enumerates the following as concomitants of ecthyma.

"Inflammations of the tarsi, conjunctivæ and irides are frequent accompanying symptoms. Three cases of the latter affection occurred in eighteen cases of venereal ecthyma, and came on from the twelfth to the twentieth week after con-

nexion, almost always later than the ecthyma; but ulceration of the tarsi and corneæ more frequently occurs about the time of the eruptive diathesis.

Ulceration of the tonsils is liable to come on later than the sore-throat, before spoken of,* and exfoliation of bone from the nose, with discharge of pus and blood.

Suppurations of the submaxillary, cervical, axillary, and other glands, are not unusual from the irritation upon the skin, but perhaps as often from the passage of virus through their absorbent trunks.

Abscesses are apt to form in the calves of the legs, and in one instance they were conjoined with very large boils.

Inflammation of the synovial membrane occurs at times in this eruption; and periostitis, and nodes, often follow ecthyma. Ulceration above the malleoli, and in women about the toes, is not unfrequent about this period, as the larger incrustations separate; and swelling of the ankles, or of one of them, or of the leg, even without ulceration, is very constant: this occurred in three cases out of eighteen." 389.

But the vesicular and pustular eruptions may certainly be considered as, *par excellence*, cachectic; at least rupia and ecthyma may be deemed so. The other cachectic affections accompany them, singly, collectively, or in succession. Phagedænic ulcerations of the mucous membrane, either of the mouth and throat, the conjunctiva, the urethra, or the rectum—inflammation of the fibrous system, and of the bones, of a low character, and tending to ulceration and to suppuration—sloughy abscesses in the cellular tissue—atonic inflammations of the synovial and the serous membranes—such are the features of the cachectic malady, which, under the names of pseudo-syphilis, syphiloid disease, and, indeed, under many other designations, has perplexed the inquiries of the profession, and excited the horror of the public. We cannot compliment Mr. Judd on having thrown any light on its nature, or even on having cast a philosophical survey on its characters. A barren and bald enumeration of facts, some of them imperfect, all of them confused, selected without discrimination, presented without arrangement, and connected without system, can scarcely be considered a scientific, or even a tolerable account of a complicated malady. The remainder of our author's observations may be readily disposed of.

"After the more extensive eruption has declined, very small flat pustules, few in number, generally keep coming out near the papillæ that the hairs of the legs pass through. About this period the health of the patient materially improves, but he is still liable to a secondary eruption, and this is described as the second variety in the classification; they are fewer in number, with psydraceous pustules, and therefore called ecthyma psydracium.

Inflammation of the skin of the alæ nasi, or eyebrows, and enlarged testicle, are occasional accompanying affections; and, curious enough, the latter occurs even in parties that have not had urethritis. In one instance, herein related, intense crimson maculæ followed large ecthyma; and mottled skin, or puniceous patches, at times, though rarely, precedes ecthyma, as in the case of J— B—'s. These very extraordinary and interesting circumstances serve as links, to join this venereal eruption with the rest, although Mr. Carmichael will not allow that it is a true syphilitic production." 389.

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* "Ulcerated throat appeared in two months after contagion—swelled testicle in five weeks."

Our author appears to us to commit a very serious omission in his account of rupia and ecthyma. Both these eruptions exhibit a remarkable tendency to relapse. A patient will have attack after attack of either. We should say that this is a very characteristic feature of the cachectic eruptions, and when we reflect on the state of constitution in which they are developed, it need not excite our astonishment. It is true that most of the venereal eruptions display this disposition more or less unequivocally. Lichen, for example, frequently comes out in crop after crop—the venereal exanthema does the same—but this is more remarkably the case with the vesicular or pustular eruption, of which it may be said—

——— Micat inter omnes.

The cachectic patient, seeming to recover from an irruption of rupia or ecthyma, followed by extensive ulcerations, finds time after time that the recovery is deceptive, the amendment temporary, and fresh attacks of fever ushering in fresh series of pustules, sores, periostitis, frequently consume many months or years. The surgeon should be well aware of this character of the cachectic eruptions, and the patient should be informed of it too. Unless both are familiar with it, the former will commit the most serious errors in his treatment, and the latter will certainly be discontented with medical advice, and sunk in despair with regard to his complaint. In practice, we have many opportunities of observing the disastrous effects of an imperfect acquaintance with this law of the venereal cachexia. Before we quit a subject on which so much is to be said, we will advert to only one other point. Enlarged testicle, says Mr. Judd, occasionally occurs in combination with rupia, and that in patients who have not had urethritis. We have said already, that a general survey of the symptoms of cachexia enables us to arrange them in groups, relating to the tissues they invade. The testis and the mamma are composed in a great measure of filamentous tissue; in both, we have also a mucous membrane; and, added to these, is the glandular or secreting structure of the organs, the exact nature of which is little understood.

The testis is liable to become inflamed in gonorrhœa, because the inflammation may run along a continuous mucous membrane; and we usually find that, when the testicle has swollen, the urethral discharge for a time diminishes or stops. We do not say that the inflammation, when it arrives at the testicle, is limited to the membrane that conducted it. It spreads to the fibrous tissue of the cord, the epididymis, and testis, and sometimes it invades also the serous membrane, and produces in it effusion of serum, of lymph, or of pus. Nay, the external cellular tissue is at times affected also, and diffuse inflammation or abscess in it is set up. But, if observation proves any thing, it proves that inflammation of the testis, in the case of gonorrhœa, is the result of the extension of the inflammatory action along the continuous mucous membrane.

The testis is also liable to become inflamed in cachectic cases, or indeed in company with venereal secondary symptoms not cachectic. The quantity of fibrous tissue and of mucous membrane contained in it are fully adequate to account for the phenomenon. If the sclerotica and iris, the periosteum and bone inflame, why should not the testis? It is in company with one or more of these, that in such cases it usually does inflame, and the surgeon

has occasionally the opportunity of remarking successive or concomitant affections of them all. Why it should be so, we need not stop to inquire. That is an ultimate fact. But we may be permitted to observe that it is only by these general inductions, by these wide classifications of phenomena, that we can hope to arrive at any thing like a philosophical acquaintance with the laws of the venereal disease. This is so modified by disturbing agencies, especially by constitutional peculiarities and by remedies, that we fear it must be looked on as Utopian to expect that we shall ever be thoroughly conversant with its infinitely varied forms.

Passing over some cases, for which we have not space, and which indeed present little to arrest attention, we proceed to a chapter, dedicated to the consideration of—

THE MORE INVETERATE SECONDARY SYMPTOMS.

To do so, we must disregard for the present, the 5th, 6th, and 7th orders of venereal eruptions—the maculæ—the tubercles—and squamæ. Our reason for this course is simply this. Rupia and ecthyma are themselves the leading features of that cachectic state, in which the "inveterate secondary symptoms" occur. It is more natural then to associate than to dislocate them, and we shall reverse Mr. Judd's mode of proceeding.

Mr. Judd can seldom avoid the opportunity for speculation. His short remarks on urethritis contain almost as many theories as lines, and his venereal eruption is generally ushered in by an unpretending assumption, that such or such a syphilitic sore is the veritable Amphitryon, the true fons et origo of the eruption in question.

The practical surgeon who daily sees nodes, ulcerations of the soft parts, and caries or necrosis of the hard, in connexion with rupia and ecthyma, and after almost any primary symptom, provided that the constitution has been broken down, will be inclined to smile when he finds that Mr. Judd attributes even these affections to a special virus.

"The effects," he says, "of a variety of sore slightly spoken of in the last chapter yet remain to be described; it is followed by bubo, and in two or three months by periostitis, nodes on the os frontis, ulna, or tibia, as may be seen by referring to the Cases of J——n and T——es; but no cutaneous eruption, as far as I have been able to make out, is ever produced by the virus of this, or the preceding kind of sore mentioned at p. 483. Having already given examples of the venereal eruptions, both in their earliest and later forms, I shall now conclude my description of the effects of the syphilitic virus, by detailing more obstinate cases wherein eruptions scarce occur, or only form occasionally, and then sparingly, and as one of the latest of this class of secondary symptoms.

The disease in these instances probably is produced by a more intractable form of virus, causing the very worst, most obstinate, and long-continued train of venereal sufferings, that the profession are called upon to treat.

The virus above alluded to appears to attack the nares, the palate, the tonsils, the throat, and synovial membranes, amongst the soft parts; and the periosteum, the cartilaginous and osseous structures amongst the hard ones; wearing the system by nocturnal pains, consequent restlessness at night, conjoined with debility and hectic fever. These symptoms appear slowly, and months, or even years, after this particular form of virus has entered the system, by producing a small superficial sore, which probably should be deemed the only true chancre." 489.

We confess we are in amaze. The world has been engaged for the last half-century in hunting for the true chancre, and has found it as difficult to obtain as the basilisk that Zadig met the damsels searching for. John Hunter picked out one sore, and the "Hunterian chancre" was deemed the archetype of lues. Lately, a very speculative gentleman, Mr. Wallace, of Dublin, has patronized another sore, and advocated its claims to the distinction. But Mr. Judd outdoes his predecessors, for he selects symptoms that have been ever deemed apocryphal, as the criteria of his genuine pox. We have read and read again the passage we have quoted. We doubted, if some hidden meaning was not couched under the apparently obvious sense, for no one who peruses our author's work will in any place feel confident that he understands him. But no; we perceive no reason for suspecting that he means or can mean any thing but this:—Diseases of the bone, and those that he classes with them, are the consequences of a small superficial sore, and must be deemed as the evidence and the effects of the only true and orthodox chancre. If we thought that this opinion was really likely to obtain assent, or even to seem plausible in the eyes of the profession, we should set about exposing the gross fallacies that it embraces. We would show that the most "inveterate symptoms" follow and accompany rupia and ecthyma, and that these, as well as they, are plainly more connected with the states of constitution than with any special primary virus. But we do not think it necessary to enter into a formal communication of such an olla podrida of doubtful doctrine and tangled facts as the following quotation will serve to exhibit.

"These peculiar cases are usually marked out by pains experienced on each side of the head, as after poisons taken up from wounds in the hands; or as in exanthemata and other disturbances to the brain through the system; pains in the neck, shoulders, chest, and limbs, followed by ulcerations of the tonsils, palate, velum, and nares; shortness of breath, cough, and expectoration, as in rubeola; loss of sleep and flesh, debility, swelling and ulceration of portions of the skin of the face, and the ala nasi; incrustations on the brow, nose, and roots of the hair; pustules, boils, tubercles or ulcers, diseased testicles, destruction of the vomer, exfoliation of the ossa palati, pain, and stiffness of the joints, with inflammation, and effusion into their synovial membranes; aching in the shafts of the bones, thickened periosteum, perichondrium, and nodes; enlargement of the spinous processes of the vertebræ, of the ends of the sternum, clavicle, ulna, and shaft of the tibia. 490.

It would puzzle even that first of artists, Mr. Robins, to create order out of the confusion of this extraordinary catalogue. But difficulty crowds on difficulty. We thought that this grisly family of ills arose from "a small superficial sore." We gave the passage which seemed to say that, but we stated that we entertained considerable diffidence with respect to our unriddling any sentence in the work. That diffidence was not misplaced, for Mr. Judd continues:—

"The secondary symptoms taken *en masse* are so various in their forms and appearances, as not always to follow in the same order or succession, and no patient suffering all of them: they vary, moreover, in each, and seem to create an almost unintelligible chaos, difficult to treat, and concerning which it is still more difficult to know which should be described first. I may state that these venereal secondary symptoms are generally, though not necessarily, preceded by a sore: frequently they are produced by one that has healed in three days;

by sores whose cure has required three months; by sores attended by induration, and by others unattended by any; by sores that have been followed by buboes, and by those that induced none;—all, all these varied stages appear in their turn to cause this wretched, and often intractable, train of evils; and to the account of these tertiary venereal symptoms, this division of the Work has been allotted." 491.

After all, then, there need not be a sore at all—or if there is one, it may heal in three days—or it may take three months to do so—or there may be induration—or there may be none. All this is consistent with our own experience, but how it is consistent with the previous statement, we profess ourselves quite unable to determine. We shall therefore say no more about it.

It might be thought by those who have not perused the present work, or this review (it cannot be an analysis), with care, that after the declaration of the "unintelligible chaos" which these symptoms form, a careful and an accurate sketch of them would be presented. But it is not so. The description reflects the chaos that it represents, and the subject remains as unintelligible as before. The great and characteristic features of the malady, are smothered under paragraphs of trivial details, and our author, instead of tracing the broad characters of an ulcer of the nares or the throat, pursues the wandering pains that spring from it, or those natural effects that every body knows *must* happen. It is painful to blame, where it is impossible to praise: and useless to proceed, when our advance leads us only to fresh objects of criticism or of doubt. We must therefore, for the present, allow the inveterate symptoms to continue so, and retreat to our old position before the fifth order of venereal eruptions, the—

MACULÆ VENEREÆ.

The order comprises three varieties. 1. Spili Coccinei; 2. Spili Cruentati; 3. Spili Cuprei.

1 and 2. Spili Coccinei and Cruentati, are mostly preceded by febrile excitement, but do not seem to appear earlier than twelve weeks after the primitive affection, which Mr. J. believes to be a small abraded surface on the penis. Of course this supposition must be taken for what it is worth. These maculæ, he continues, are of a decided crimson colour, and the edge of each regularly defined. Their figure is oviform and constant,—varying in size from a pin's head to that of a Windsor bean, slightly raised above the surrounding level, and containing red lymph. In the most intense varieties of spili cruentati, almost pure blood is extravasated from the extremities of the cutaneous vessels, under the cuticle, into the absorbent rete mucosum, in which it spreads like fluid dropped on blotting-paper, or like rain fallen on dry flags. They are commonly numerous, formed in clusters, of irregular numbers, as threes and fives, with a solitary one occasionally; the surrounding skin being in the onset several shades redder than in health.

The very handsome painted-like appearance of the eruption remains bright about a week; it then gradually declines, each crimson macula gradually becoming copper-coloured, and somewhat diminished in circumference. As they recede, the stains in the rete mucosum become yellowish in colour,

and much resemble fading purpura: in about a fortnight the cuticle generally begins to recover its natural hue; and a little prior to that period, a slight depression is generally evident, whilst puniceous patches, on the contrary, leave a considerable rise. Some portions of cuticle, over the seat of the larger spots, desquamate, and at the end of three weeks all traces of the eruption have usually disappeared. As far as Mr. J. has seen, this affection is unattended by sore-throat, and is only occasionally followed by other syphilitic affections.

A very short mercurial course, he states, appears to promote the absorption of the stains, but none is absolutely necessary.

3. Spili cuprei are of a yellow colour from their commencement. They appear slowly and singly, are very long in formation, more slightly raised, and frequently becoming confluent, form copper-coloured patches of the magnitude of the palm of the hand. They last for years, and are little influenced by treatment. They answer, in short, to pityriasis, and we think it very doubtful whether they can be considered essentially venereal at all.

Venereal Tubercles.

These constitute the sixth order. They are distinguished according to their configurations, and divided by our author into three varieties, which he names:—1, Phymatosis ovata; 2, Phymatosis annulata; 3, Phymatosis verrucosa.

The general characteristics of the syphilitic tubercles are, according to our author, that they consist of considerably raised and inflamed masses, of a crimson colour—that they are permanent during weeks or months—at times suppurate, though very slowly, or subside very gradually—and that in venereal affections, they are not merely limited to the face, as in Sycosis, which they most resemble in appearance and texture, but not always in shape. We would remark, by the way, that if we limit venereal tubercles to such as will come strictly within the boundaries of this description, we shall exclude venereal eruptions, very frequent, very important, and inadmissible into any other order. We shall see anon that Mr. Judd's definition of tubercle is too strait-laced.

1. *Phymatosis Ovata.* The following is Mr. J.'s description of this, the first and chief of his varieties.

"Phymatosis ovata is an eruption of highly raised oviform bodies, of a crimson colour, about the size of split horse-beans,* generally appearing about five months after venereal contamination, and coming out for days in succession, thickly set over the person, the largest being commonly situated upon the back and the shoulders. Each tubercle appears to be the produce of a low but long-continued degree of inflammation, and consists of a deposition of red gelatinous albumen, brownish at its thin outer edge, but redder, denser, and thicker, towards its interior and base, evidently given out by secretion from the rete vasculosum, and situated in a depression, covered by a thickened and distended epidermis, with its papillæ enlarged.

* "I have dissected them, and raised off their cuticle by blisters, etc."

A few days after the tubercles have appeared, the cuticle covering the biggest here and there becomes so distended, by the deposition beneath, as to have its natural creases rased out, and to form a plain surface.

The blood during the eruption is always found inflamed, and after these tubercular semispheres have remained crimson and projecting about a month, they become brown. The cuticle covering them loses its tension, and falls back into its natural lines—still later the cuticle over them gradually assumes a copper colour, as it does in all eruptions containing red lymph; the epidermis then falls into sulci, and the tubercles decline, leaving about the end of the second month flat copper-coloured patches, almost level with the surrounding skin. They ultimately lose their peculiar tint; and the cutaneous papillæ, that were situated over the tubercles, having become dark brown dead dots, by the end of the third month fall off with large exfoliations, leaving broad depressions.

This most highly raised and scarce form of all the venereal eruptions is often accompanied by iritis, by cynanche, and nocturnal pains; its cure is much accelerated by mercury." 437.

Mr. Judd, it will be noticed, affirms that this is the most scarce form of all venereal eruptions, and we are disposed to agree with him. He has known it appear as a primitive form, and he has known it also occasionally follow lichen, ecthyma, rupia, or puniceous eruption.

2. *Phymatosis Annulata.* This also, according to Mr. Judd, is a very scarce-form of venereal eruption. The tubercles arise almost like extremely large long and oval crimson lichen: some few of them solitary, others are often grouped in circles, then forming a perfect resemblance to the shape of a very thick raised annulus. This variety of tubercle is also evidently distended by lymph, and is very durable, suppurating slowly, and generally lasting nearly two years. No remedy that he has tried appears to exert any influence over it.

3. *Phymatosis Verrucosa,* comprises venereal warts and condylomata, in our author's description of which there is nothing to detain us.

This concludes, therefore, his account of the venereal tubercle, and we must repeat, what we have already stated, that it is too narrow and exclusive. Such an eruption as the following is extremely common, almost as common, we should say, in private practice, and indeed in hospitals, as any venereal eruption whatever. From six weeks to three months after the reception of the primary sore, an attack of pyrexia ushers in the eruption. Ulceration of the throat, generally yellowish and deep, with thickened borders, precedes, accompanies, or follows it; usually *this* appears before the eruption and attends it.

The eruption itself consists of distinct depositions on the superficies of the cutis, of the size of peas, distinctly elevated, and feeling, when pinched up between the finger and the thumb, like a flattened pea. Their colour is a dull, a brownish, or a purplish, very seldom a vivid red. There is no vesication, no tendency to suppuration, no scab. Usually they are distinct, scattered over the body, and most numerous on the back, the face, the thighs. On the lower extremities, they are always larger than they are upon the upper. Sometimes they are confluent. The eruption slowly runs its course. Gradually, the redness of the tubercles subsides into a duller and more coppery tint—the tubercles themselves become more flattened—and they finally

desquamate. If no mercury is employed, there remains for a long time a dullish red stain of the skin, some deposition in it, and a tendency to scale on it. But this state of things seldom lasts long, for fresh eruptions, or repetitions of the old succeed.

If, when this eruption is present, the patient's health should by any means be materially broken, it may gradually be converted into rupia or ecthyma, or become complicated with one or both. Most frequently another change occurs. The old tubercles gradually die off, and are superseded by fresh ones of a different character. These new cachectic tubercles* are larger, flatter, softer, and more confluent than their predecessors. They communicate to the fingers a peculiar doughy or semi-elastic feeling—they occur in masses, from the size of a fourpenny piece to an area of some inches in diameter—they partially *scale*, but more frequently *scab* upon the surface—and they readily suppurate, or run into foul ulcerations.

This is a mere sketch of two forms of a frequent and important eruption. What is it? It is not papular, nor vesicular, nor pustular, nor exanthematic, nor scaly. It is clearly and obviously tubercular. Mr. Judd gives no description of it, presents no niche for it, and we cannot but look upon this as a very serious omission. There is this, indeed, to be said in its extenuation, that different persons not only observe, but narrate what they have observed so differently, that it is possible some of the descriptions we have copied may contain an account of this very eruption. So far, however, as we can read the characters of the phymatosis ovata, they do not tally with those of the simple tubercular eruption we have spoken of, and the phymatosis annulata is obviously another thing.

Squamæ Venereæ.

These compose the seventh order, and are made up of—1, Lepra Venerea; 2, Psoriasis Venerea; 3, Psoriasis Palmaria Venerea.

Mr. Judd's account of the lepra venerea requires no notice whatever. It is despatched by him in a few lines, and numerous authors present a full account of it.

2. *Psoriasis Venerea.* "This (says Mr. Judd) is the produce of a vesicle, and several months elapse before it is followed by its secondary vesicular psoriasis; and hence, from the extreme length of time that transpires between the infection and the period when psoriasis venerea appears, it generally happens that both surgeon and patient have forgot the date and features of the early sore.

This is a rare form of primitive disease as a venereal product in England; for amongst all the multitudinous eruptions described in this volume, there appear to have been but four cases recorded of this disease.

It begins by excitement in the cutis and rete vasculosum, forming inflamed red surfaces, occasioning a succession of minute quantities of thin serum to be thrown out and deposited in patches and flakes upon the under surface of the cuticle, producing thickening. These portions of cuticle soon lose their transparency and elasticity,—become red, then opaque, die, and are thrown off in

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* We say cachectic, because they occur in the state of cachexia.

irregular white and brownish scales from the epidermis of the body. If this diseased action chance to be carried on in a dry part, it forms long fissures,—if in a moist one, deep sores of the same shape, or even ulcerations, as about the anus. In the scalp, eyebrows, whiskers, etc., the exuded lymph collects under the successive layers of scales, and then produces incrustations almost similar to some forms of tinea, and especially to porrigo larvalis." 461.

We have evinced throughout this article considerable surprise at the decided tone in which Mr. Judd points out the species of primary sore, that leads to this or that particular eruption. He seldom evinces any hesitation in deciding, on slight evidence, what is confessedly a ticklish matter. If any thing could point out in a stronger manner than another the hollowness of these positive assertions, it would be the enunciation of the dogma that psoriasis is the produce of a vesicle. Psoriasis is a common syphilitic eruption in women. In them we have an opportunity on a liberal scale, of determining the usual primary affection. That affection is about the most opposed to a vesicle that can be conceived—it is the venereal condyloma. If a woman presents herself with *it*, we may be pretty certain that, supposing a fair length of time to have elapsed, inspection of the throat will discover a white ulceration, and examination of the skin will display psoriasis. These two are, par excellence, the consequences of condyloma. If any fact in lues is certain, this is so. Yet, in spite of this, we find that Mr. Judd, without any sort of reservation whatever, sets down a vesicle as the primary cause of psoriasis.

Psoriasis, he says, is very rare. At the Lock Hospital it is very common. The solution of this discrepancy appears to be—that Mr. Judd has chiefly studied the disease in men, while, in order to obtain correct notions of it, it is necessary to see it on a large scale in both sexes. Psoriasis is not a common eruption in the male; it is in the female that we generally see it. The female is very liable to condyloma, and condyloma is the most common antecedent of psoriasis.

The chapter on the scaly syphilitic eruptions must be deemed peculiarly defective. The ordinary tubercle is not described—its changes and its phases are apparently unnoticed—the peculiarities of psoriasis are unnoticed too—and the laws of the scaly syphilitic eruptions generally are not hinted at. If, on previous occasions, we have lamented the absence of those broad views and wide inductions, which can alone simplify the study of syphilis, our advance has not tended to diminish our regret, but has shewn still more forcibly that Mr. Judd has yet very much to do, before he can obtain the acquiescence of those who are practically conversant with the phenomena of lues, or merit the praise (no mean one neither) of throwing light on the laws of this perplexing malady.

3. *Psoriasis Palmaria* is ranked by Mr. Judd as a variety of the eruption, and a special consequence of lues. It does not very unfrequently occur, but, so far as we have seen, it is always preceded, or accompanied by psoriasis, or other eruptions elsewhere, and does not merit particular notice. We have a gentleman affected with it under our care at this moment. He has superficial ulceration of the tonsils, and posterior palatine arch, stains, inclined to desquamate here and there upon the surface, small scabs amongst the hairs upon the scalp, and condyloma. It is always a troublesome affec-

tion. Another gentleman with psoriasis palmaria, has at intervals small white superficial ulcerations of the lips, and tongue, and palate. Both have for some time laboured under the affection.

Comparative Frequency of the Eruptions.

This is a subject of some little interest. There is reason to believe that in different countries, and under different circumstances of climate, diet, and modes of life, the frequency of particular eruptions varies, and that nothing like a fixed ratio exists. The following is the estimate of Mr. Judd.

"Of all the cutaneous affections, *true* venereal exanthismus, or *mottled skin*, seems most rarely to exist; for not more than two cases were detected after two hundred and fifty primitive sores: but it really is a slight and delicate form of rash, frequently overlooked, except, indeed, when it is daily sought after about the proper period.* What by some has commonly been termed venereal mottled skin, on minute inspection with a compound lens, magnifying fifty times, is not always found to be true exanthema, or rash, but a risen form of eruption somewhat resembling it; and this latter species is fully described under the term Puniceous Patch.

Puniceous patch and its varieties, or raised red patches on the skin, are of late years more prevalent: they have been observed to form almost one-third of the venereal eruptions.

Lichen, and enlarged papillæ, may be said to be a tolerably common form of syphilitic eruption, as they constituted more than one-third; and we may safely calculate upon every fourth case exhibiting some of the varieties of this Order, either simple, patched, grouped, or circumscribed.

Taking the varieties of vesicular eruptions into account, they will be found to be almost as common as the pustular ones; and that the former are of frequent occurrence is shown, by one-fifth of the cutaneous cases presenting various forms of herpes and rupia. It may here be remarked that venereal rupia prominens is rare, and that herpes circinatus venereus is so excessively scarce as hardly to be met with in England, though it is seen, at times, both in Ireland and in India.

Ecthyma is a very common form of venereal cutaneous affection, for somewhat above a third of all the eruptions that follow primitive sores is of this denomination.

Spili coccinei are rare, but oftener met with than genuine tubercles; and when the former eruption appears, it often constitutes the only cutaneous attack that takes place during the train of symptoms arising from that contamination.

Tubercula seem very scarce, as but four instances were met with amongst all these venereal cases: and in searching through a hundred others, I found but one or two instances of well-marked tubercles had occurred; though there were cases of what is called Tubercle by some practitioners.

Squamous affections of the cuticle are not an over-frequent product of syphilitic virus; for out of this large number of cases there were but seven of psoriasis and lepra, although they were watched, and from two to six years were permitted to elapse, to give time for other forms of eruptions to degenerate into them;—some of the above were so produced, but occasionally they appear as the primitive eruption following the sore." 474.

The only point on which we differ from our author, respects the tuber-

* I generally watch for it whilst applying rollers to buboes, some weeks after the sore.

cular and scaly eruptions. We believe that both are far more frequent than he considers them to be. We have also hinted in a cursory manner an explanation of the circumstance.

We have observed a material difference in the comparative frequency of particular eruptions in hospital and private practice. In the former, we see much of rupia and ecthyma. In the latter, we find chiefly the papular, tubercular, and scaly eruptions. The reason is not doubtful. The patients of Lock Hospitals are filthy, poor, intemperate, and have been (medically speaking) ill treated. The higher classes are more careful of themselves when ill, are surrounded with comforts or with luxuries, and have, in general, good medical advice. It is comparatively seldom that we see a private patient with rupia or ecthyma; we might almost say never, except in consultation, or in the instance of some unhappy wretch, who has gone the round of the London surgeons.

There are some small portions of the work before us which have yet remained unnoticed. Two or three pages are appropriated to an enumeration of the ulcerations of the throat—a few more to experiments on the non-mercurial treatment of syphilis—and a brief chapter is consumed in anticipations of benefits to accrue from the use of the hydriodate of potass. For a notice of these matters, we shall find opportunities and space in our succeeding Number.

For the present, we part from the volume and its author. We have concluded the consideration of the primary symptoms and the secondary eruptions of lues. We have differed widely from our author, and we have differed under the conscientious conviction of necessity. If we are wrong, we do our best to ascertain the right, and what we believe to be the right we say. The critic's task is not a pleasant one. Accident places him in the position of a judge, when inclination and many other considerations would lead him to be silent. But, being what he is, it were cowardice to shrink from the responsibility of his situation, and, so that he has one steady aim, the pursuit of philosophic truth, he may expect and will support much obloquy and some misrepresentation.

We have made it a point to direct attention, at convenient opportunities, to the subject of the venereal disease. It is a subject of great importance, because the complaint is so common that all are called upon to treat it, and so complicated, that very few are even tolerably well acquainted with it. Every practitioner supposes that it is easy to treat a clap. But when enlarged lacunæ, or abscess of the penis, or chronic inflammation of the corpus spongiosum, supervene, too many are confounded with symptoms that they do not rightly comprehend, and either betray a discreditable ignorance, or perversely and injuriously blunder on. If this is the case with the simpler affections, it is still more so with those peculiar symptoms, not unfrequently developed in the progress of lues. How few surgeons or physicians would feel or exhibit a decent confidence in the management of the serpiginous phagedænic sores. We are taking, some one may possibly say, a rare and extreme case. Such cases are neither rare nor extreme; but, granting that they were so, the numerous examples of rupia and ecthyma, of sloughing throats and of diseases of the bones, are mementos of unskilful management somewhere and at some time, more unequivocal and more deplorable than any that declamation could dress up.

In short we do not hesitate to say, that exact and scientific notions with respect to the venereal disease are far from generally diffused in the profession; and we are sure that an attempt to disseminate an accurate acquaintance with its forms, and judicious principles of treatment, will be received with favour and encouragement. On this account, we have devoted much space to the consideration of lues; and, as occasions offer, we shall continue to recur to it.

HOMŒOPATHY AND ALLOPATHY? OR, LARGE, SMALL, AND ATOMIC DOSES? By *David Uwins*, M.D. Octavo, pp. 34. Renshaw, Strand. August, 1836.

So our honest friend David has become a convert to Homœopathy! The first thing that struck us in this remarkable pamphlet, was the note of interrogation—Homœopathy *and* Allopathy? If *and* be changed into *or*, the title is intelligible—as it stands, it is rather ambiguous. The worthy Doctor informs us that, some "five and twenty years since," he occupied some of his leisure hours, and "added a little to his slender coffers" by the "sickening trade of book criticising." If we are not mistaken, Dr. U. has been at this trade much within twenty-five years, as the pages of the "Medical Repository could testify. Be that as it may, Dr. Uwins then wrote *against* phrenology, and is now a warm advocate of the doctrine. We would ask Dr. U. if he had studied phrenology when he wrote against it?

Homœopathy is thus very logically and classically defined by our author. "Like loves like, or birds of a feather do well together." Sincerely do we hope that the homœopathic neophyte will "feather *his* nest," and "add a little to his slender coffers," by deserting the allopathic, and joining the "atomic" flock!

"The design of this tract is merely limited to an announcement (upon the strength of *a few* recitals) of the high value the *similia in similibus* theory of medicine has proved in *imparting a power to the medical practitioner which he never possessed before*, and in helping to take off that weight from the mind of a conscientious physician which must necessarily connect itself with public appreciation beyond conscious desert." 7.

So then "*a few recitals*" are sufficient, in the mind of a grave physician, to establish a new theory founded on the ruins of all preceding doctrines and practices!! The archness of sly-boots will be seen in the sequel.

Dr. Uwins refers those of his readers who are desirous, "at very little expense and trouble," to make themselves acquainted with homœopathy, "to consult a *lively* and ingenious tract by the Rev. Thomas Everest"!! This deadly lively tract, and the work of the Rev. Dr. Townsend, he considers as little less than the Alpha and Omega of medical science! Cunning rogue!

"I *prose* in this manner for a particular, *a specific, and a selfish purpose;* and while in the execution of the duty I impose upon myself on the present, as on all occasions, to say what I think, I may say some things which will not sound pleasant to allopathic 'ears polite.'" 9.

Surely Dr. Uwins will be the death of us. Fortunately the cessation of cholera prevents the worthy Doctor from being the death of some who would not be able to laugh at the business.

"I was about being cruel enough to confess that I almost wish to see a few cases of cholera re-appear, in order to have an opportunity of proving the efficacy of the practice now referred to, principally, in the first instance, being constituted of very small and frequently-repeated doses of camphor." 11.

It appears that Dr. Uwins lent a deaf ear to the new doctrine until he accidentally heard "from very many individuals," that homœopathy was gaining ground with the *public*—and that—"*alas! allopathic carriages would soon be at a low discount.*" This intelligence probably reminded him of the heavy bill of his coachmaker in Long Acre, and, like a knowing one, he considered it prudent to sell out his shares in ALLOPATHY, and embark his capital in the ATOMIC speculation.

"Surely, under all these circumstances—which I have thus briefly and *most candidly* narrated—I cannot be accused of being 'blown about by every wind of doctrine' that passes by, in having come to the determination of modifying my own practice by an infusion of the new principles." 12.

Oh, not at all, dear Doctor. You have not been "blown about"—you have merely "blown the gaff," as the sailors would say, on your homœopathic friends.

"I have come to the conclusion that homœopathy, be it true or *false*, deserves the thanks of all thinking and thankful men, for the information it has given us respecting the power possessed by doses of medicine *(prepared in a particular way)* and divided to an extent almost unbounded." 14.

Aye, aye, "*prepared in a particular way*"—known only, of course, to the initiated! Most *naively* does the Doctor add—

"This is a *principle* which pervades the whole *scheme* of homœopathic agency."

Not a doubt of it. The homœopathist either prepares and dispenses his own atomic doses, in his own way—or insists that they be prepared by a particular homœopathic pharmacopolist—and thus the "scheme" works well—for the discount of "allopathic carriages."

Dr. Uwins began the practice of homœopathy on himself—and we have no doubt that the experimenter had full confidence in—the *innocence* of the remedies.

"A two-grain dose of James' powder was lying in my bed-room for intended use; and it occurred to me to take up by a moistened finger an unappreciable quantity, which I put on my tongue, and in the night I broke out into a general and profuse perspiration." 15.

We were going to quote Scripture in proof that FAITH will work wonders, when we remembered that it required the size of a "grain of mustard seed" to effect a miracle—and consequently that the dose in this case was *allopathic*, and not applicable to the subject. That the Doctor did sweat, we are bound to believe; but, as he does not inform us whether it was in the month of August or January that his pores broke loose, we, allopathic scep-

tics, have some hesitation in attributing the "profuse perspiration," to an "unappreciable quantity" of the pulvis Jacobi.

But we must proceed to experiments on others as well as on self.

A lady living near Woolwich "had been beset *by* years with a full chorus of anomalous maladies—acid secretions from the stomach, for which she had taken soda enough almost to neutralise all the acid contained in Apothecaries' Hall—pains and low spirits, sallow complexion, &c. &c." "In a word, diet and medicine had been *aimed and aimed*, again and again, at her poor sensitive body and mind, so that the task of renovating seemed almost hopeless." But Dr. U. did not then know the miraculous powers of "atomic doses." He gave the lady the *forty-eighth part of a grain* of blue-pill, "which roused and excited the *functional dynamics* to such an extent as to prove more sensible in its agency than anything she had ever before taken"!!! This fellow will be the death of us!

Dr. U. avers that imagination had nothing to do with this supernatural agency. "She expressed herself as being sensible that the right nail was now hit, and that I had only to continue my blows to be more successful than I had hitherto been with her."

Some of our readers may shrug up their shoulders and cry "*credat Judæus.*" But there is a very easy and natural solution of the enigma. Everything the Doctor had given this lady, previously, made her worse. He gave her the atomic dose of blue-pill—that is to say, he gave her nothing; and the poor lady felt the benefits of homœopathy.

Case 2. A lady had been teazed for months with bronchial cough which set time and medicine at defiance. She was cured by a single dose of medicine, consisting of the twelfth part of a grain of extract of aconite, and the same of ipecacuanha. The Doctor seems to have shuddered at the prodigious dose he gave his patient. "The twelfth part of a grain is of *enormous* amount," for this lady was troubled afterwards with headaches, which were, no doubt, owing to this departure from the strict rules of homœopathy."

Case 3. Dr. U. was called to a gentleman in Bond Street by "one of the most intelligent men in our profession." The patient laboured under "a sort of nervous fever, connected with, or dependent on, cerebral irritation." The Doctor applied *leeches* which, according to homœopathic canons, "are worse than vain things"—and ordered the specific—the 12th part of a grain of aconite. He also ventured on a quarter of a grain of blue-pill. "His case very shortly assumed a most pleasing aspect," and the patient told the apothecary—"This doctor of your's is certainly a most *penetrating* and able man—a position to which I was very ready to subscribe."

Case 4. A young lady laboured under suicidal mania. She took a homœopathic dose of *aurum*, which was repeated after the lapse of a week. She is now "in a condition promising thorough recovery."

We will quote only one more case.

Case 5. "Miss ———, Pentonville, whose sister had died of consumption.

To this young lady I ordered medicines so exceedingly minute, according to admitted principles, that fearing her medical attendant would think I had committed a mistake, I wrote at the corner of the prescription "Homœopathy," which my friend Quin would not have allowed me to be correct in doing. This young lady paid her third visit to me yesterday morning, with the pallidness of her cheek exchanged for the bloom of health." 24.

We read over this case twice, in search of the disease for which the Doctor prescribed these exceedingly minute doses of medicine—but in vain. All we could make out was—that the patient's *sister* died of consumption!!

By this time our readers are beginning to exclaim that HOMŒOPATHIA is HOMŒO-HUMBUG—and that Dr. Uwins is a homœo-maniac. The first is true—the second is erroneous. Dr. Uwins is not mad. The whole pamphlet is a most "ingenious device"—a homœopathic "encyclical"—portraying the principles and practice of the new doctrine so ingeniously that many people would think him *in earnest*, though misled and deceived. But it is no such thing. From the days of Gulliver to M'Gee—from the witty traveller of Lilliput to the witless bigot of Exeter Hall, there has not been put forth a more clever hoax than this brochure of Dr. Uwins. It exhibits a most faithful though fictitious picture of homœopathy, under the mask of reality. Up to the very last moment, Dr. Uwins maintains the *assumed* character of homœopathist, with admirable skill. *Voila.*

"Although here I do not intend to theorize, I will just intimate that an electric principle is supposed to mix with the medicinal ingredient—to be infused into the ingredient by the mode of its admixture with the vehicle—and greatly to aid the operative virtue of the atoms." 31.

In fine, though long acquainted with the author of this pamphlet, and entertaining a high opinion of his talent for humour and sly satire, yet we had no idea of the powers which he has here exhibited of exquisite irony. Dr. Uwins has, indeed, "hit the right nail on the head"—and performed the office of undertaker to Homœopathy, with as much dexterity as mercury does to the flitting shades of mortals.

"Tu pias lætis animas reponis
Sedibus, virgâque levem coerces
Aurea turbam—superis deorum
Gratus et imis."—*Hor.*

THE ANATOMIST'S INSTRUCTOR, AND MUSEUM COMPANION:—BEING PRACTICAL DIRECTIONS FOR THE FORMATION AND SUBSEQUENT MANAGEMENT OF ANATOMICAL MUSEUMS. By *Frederick John Knox*, Surgeon, Conservator of the Museum in old Surgeon's Hall. 12mo, pp. 152. Edinburgh, 1836.

IN our last number we noticed at some little length a paper by Mr. Crosse, of Norwich, on the best mode of preserving preparations in spirit. We did

so, because that is very useful knowledge, and many surgeons, both in town and country, are much in want of it. We believe that few have been more anxious than ourselves to encourage the taste for pathological investigations, and to point out the indispensable necessity for becoming conversant with the facts of morbid anatomy. The Tory Doctrinaires are ever in alarm when morbid anatomy is mentioned, and always attempt, though sometimes obliquely, to throw cold water on its study. The impulse that it gives disturbs their inertia. But they have been driven from post to post, and although they have defended gallantly enough, the entrenchments of good old empirical ignorance, they have little ground left on which to fight.

It is amusing to look back on their defeats. When the diseases of the lungs were investigated by Laennec, they raised the battle cry of dogmatism, and shouted against the pathological innovator and his inutile lignum. How they derided the notion of pneumo-thorax, and the absurd idea that abscess of the lung was not a common thing. But pathological facts prevailed against prejudice, and the curious observer may now frequently discern a physician of the school that laughed at auscultation, solemnly applying the wrong end of a stethoscope to the wrong part of a chest, and profoundly recording what he *cannot* hear. Ridiculous as this may seem, it is the surest test of the triumph of truth, for it is easier to convince opposing reason, than to shame ignorance and ancient prejudice.

When the scalpel was applied to the investigation of the nature of fever, again the old party denounced the folly of the morbid anatomists. How they chuckled at the notion of follicular ulceration, how they clung to the good Hippocratic doctrine. Fever was from beginning to end a hocus-pocus thing—they could not tell, and nobody knew what; and it was a dream of pathological enthusiasts to suppose that its nature could be unravelled by dissection. But again the truths displayed by morbid anatomists prevailed, and although its sanguine advocates rather overrated what it could effect, yet no one can deny that our acquaintance with fever has been rendered infinitely more exact and philosophical than it was before the organs involved in it had been carefully and extensively examined after death.

It would be useless and impertinent to pursue these reflections, or to waste time in proving what most well-informed men now admit, that the dissection of disease has within these few years effected incalculable good for medicine, and is still continuing to effect it. The alterations of the heart and arteries—the diseases of the brain and of the spinal cord—the affections of the joints and of the urinary organs, are those in which most has been latterly accomplished. The researches on the varieties of morbid growths and malignant changes of structure, have unravelled something of the obscurity which still surrounds them; and when we look, on the one hand, at the first description of fungus hæmatodes by the older Hey, and contemplate, on the other, our present state of information with respect to these complaints, we have much reason to be satisfied with what has been done, and some to anticipate what may be done hereafter.

In large towns, where there are hospitals, and museums constructed and supported at a great expense, we are not only enabled to place ourselves on the level of the information of the day, but even to contribute our share to its advance. But the country surgeon removed from cities where these advantages may be procured, obtains with difficulty the means of extending

his pathological knowledge. It is true that the journals inform him what is going on in the larger theatres of science, and many excellent publications, intended to disseminate the knowledge of pathology, reach him. But his opportunities of becoming practically conversant with changes which he sees depicted in drawings, or described in words, are few and far between, and it is a very great object that he should be qualified to make the most of them.

To do this he should know the best methods of preserving those parts, which he has had such difficulty in procuring. This is really useful knowledge, because it preserves what will continually remind him of what he might otherwise forget, and, more than that, it breeds in him a taste for researches, which cannot be pursued without giving a philosophical character to his mind. But unfortunately this necessary information is seldom acquired in the period of pupillage, and hitherto there has been no work to which the surgeon could refer for such full and such accurate directions as would be of real service to him.

It is impossible not to see how rapidly the mass of the profession is rising in its intellectual appetites. All now are anxious to know something at least of natural history, of comparative anatomy, of botany, of geology, and of many sections of science or of art, in which the merest medical smatterer half a century ago would have been deemed a Crichton. No doubt that this taste and these habits contribute to make men sciolists. But a man in our profession cannot expect, if he practises it as he should do, to be more than a sciolist in other things. To medicine his attention must be mainly directed, and to it he must consecrate the general information he possesses. Yet wherever he is, there are the means of getting specimens of natural history, and of comparative anatomy; and if a surgeon possesses the wish to collect, and is acquainted with the means of preserving them, we may safely say that there is no one, however small his means, or disadvantageous his position, who may not gradually accumulate something like a scientific museum.

To aid him in that interesting and useful occupation is the object of the little book that lies before us. Its author, Mr. Knox, a conservator of the museum in old Surgeon's Hall at Edinburgh, is qualified from experience to teach, and it shall not be our fault if "The Anatomist's Instructor" is not in the hands of most members of the profession.

It is divided into three parts. The first is appropriated to the Mode of Forming Anatomical Museums. The second is on the Modes of Preserving Diseased Structure illustrative of Pathology. The third is on the Art of Drawing, Modelling, and the Use of the Microscope.

It would, of course, be out of the question to analyse a manual. We shall therefore select those portions which seem to us to convey the information we would wish to see extensively disseminated, and recommend such of our readers as are anxious to be au niveau of the mysteries of museum-making, to purchase the work, and keep it constantly at hand.

The first chapter is on the various methods of preserving the soft textures.

Preservation by Drying. This is in common use. Every student knows that a very oily preparation will not dry well. Labour is generally thrown away upon it. Never put up an oily preparation wet or dry, unless it is

very valuable indeed. The first thing we must do before we dry a preparation is to get the blood out of it as much as possible by maceration in water. The water should be changed at least twice daily, and as soon as it is no longer tinged with blood, the maceration should cease. But the drying itself is a thing of consequence. Let us hear Mr. Knox.

"Those preparations intended for drying will either require to be stretched out by means of pins, on a board composed of soft wood, and perfectly smooth; or, in the event of being hollow, such as the stomach, bladder, &c. they must be distended with air, if entire, or, if not admitting of being distended with air, may be stuffed with baked hair or wool. Oiled paper, such as is used for tracing, may be used, so as to prevent the preparation adhering to the board or the material made use of in stuffing." 10.

But the student must not think that if a preparation is hung up, it will therefore necessarily dry well. Frosty weather won't do, and moist weather is worse still. Hang the preparation in a draught, and a draught of dry warm air if it can be got. If it can't, we are not to despair—far from it—for, then:—

Let the part be put in a dish, "covered with proof spirits, and evaporation prevented by means of a close cover; or, if bulky, merely wrapped in a cloth moistened from time to time in alcohol. It may afterwards be finished off at any period, and it dries and looks the better by having been immersed in spirits."

This partial or complete immersion in spirits, prior to the operation of drying, increases the beauty and facilitates the desiccation of membraniform preparations vastly. It is even of very great service in putting up blood-vessel preparations, and this is the plan which, at some schools, is always adopted.

We now approach a very serious and momentous question—one on which we anticipate great doubt and difficulty, Ought preparations to be varnished? There's the rub. Our author has taken a deliberate vow against varnish. It matters not what varnish it may be, mastic, copal, or white spirit—

He'll have none on't.

"My objections to the use of varnish, I am aware, will require to be clearly and forcibly stated, as its use is at present almost universal. Whilst in charge of the Museum of the College of Surgeons, an extensive collection of vascular preparations was presented to the College by Dr. John Thomson. They had all evidently received abundance of varnish; and in consequence of the succession of coats of varnish and dust obscuring the arteries and veins, an attempt had been made to paint these. I observed, in the mean time, that these preparations had not been in the museum for many hours, when, on lifting any one of them, there invariably remained various little hillocks of a fine brownish-looking dust. I knew this to be the effect of a very active small black beetle, common in museums, and instantly gave these preparations a thorough examination. I found these beetles in thousands; they had undermined every texture, the thick coating of varnish in many parts only remaining. It is true that repeated applications of turpentine destroys all insects; but the varnish so effectually prevented the turpentine from reaching the central parts, that I despaired of completely clearing the preparations. I kept them in an apartment separate from the museum, and gave them a daily visit for many months. My mode of preserving the largest vascular preparations, however great the quantity of muscle may be, is simply to dry it, having previously cleared it as effectually as possible of blood,

and soaked it well with spirits of wine. During the winter months a little mould will often make its appearance, even in the best-arranged museums; but this can be instantly removed by means of turpentine applied with a brush. In summer, air should be freely admitted to the cases containing the preparations, and turpentine freely applied. If oil should appear on any part, it may be removed by means of a little tow. I have now in my possession vascular preparations preserved in this manner ten years ago, and which look quite as well as when prepared, and, I may add, as well as any I have had an opportunity of examining. The Barclayan Museum was very rich in vascular preparations, and, having had it under my care for a length of time, I observed that all these preparations had been varnished. The insects were abundant, but not so numerous as in the collection to which I have already alluded. The greater proportion of those in the Barclayan Museum were intended to shew the number of minute branches into which arteries divide, having all the muscles nerves, &c., cut away, so that little was left for insects to pick at. Another set of vascular preparations, of very superior utility to the minutely dissected ones, had suffered prodigiously from insects, the material used in filling the vessels having mostly been composed of tallow." 12.

There is something in these observations to give us pause, and to excite a very solemn train of reflection. Is there a conservator whose conscience can acquit him of having used varnish in a reckless way? Does a preparation look shabby?—Varnish it. Is it decaying?—Varnish it. Is it the last week in September?—Varnish it for the first of October. Is the museum to be disposed of? Order a dozen pots of varnish. Poor Mr. Brookes was a glutton in varnish, and we hear that its consumption, prior to the disposal of his preparations, was frightful.* We own that, not having the fear of "small black beetles" properly before our eyes, we have ourselves infamously over-varnished. But we will reform, and we recommend our friends and readers to take counsel. Yet, as the Member for Finsbury would say, we are "free to confess," that we cannot go the lengths that Mr. Knox has gone, and eschew varnish altogether. Only look at that varnished limb. It has not been done with a mop, but lightly, gently, rapidly, and con spirito. How glossy, how elegant, how adapted for a museum! And see that other dry, crusty, sulky-looking, unvarnished thing beside it. Oh, we cannot give up varnish; but we promise, and may the Gods record our adjuration, that we never will abuse it. We intend hereafter to confine ourselves to white-spirit varnish, to put on the thinnest film imaginable, and never to employ it when the preparation is much exposed to dust. With these precautions, we think it may be very safely indulged in.

Before we quit this absorbing subject, let us say one word about cleaning varnished preparations. When they become dirty and dusty, many people, proh nefas, content themselves with laying on a fresh dab of varnish. This shews not only want of principle, but ignorance. It is, as Fouché says, "worse than a crime—it is a blunder." The fact is, that many varnished preparations may be cleaned with a brush, and a little warm soap and water. This removes the external dirt-absorbing surface of the varnish, and, after the preparation is dried, a fresh thin layer of varnish should be applied. Of

* The College of Surgeons have been grossly abused for not purchasing that museum. They exercised a most wise discretion, for, with many good preparations, there was a host of bad ones, and an inconceivable quantity of rubbish.

course there are many preparations, for which the employment of soap and water would be sacrilege.

Turn we to wet preparations. What a source of anxiety these are, and ever have been, to curators, it is unnecessary for us to say. A really good preparation in alkohol is an object of as much solicitude to him as her lamb was to Maria. He fondles it—watches it, but, as the Gheber's bride pathetically laments—

> In spite of lead and bladders's power,
> He sees his fondest hopes decay;
> And still, alas, from hour to hour,
> The alkohol *will* fade away.

Will no benefactor to his species arise, to shew us how a wet preparation can be really tied up securely? No such has appeared on the horizon yet, and, for the present, we must be contented to do the best we can.*

There is not a more painful spectacle to a curator, than seeing a clumsy brute of a fellow attempting to put up a spirit preparation. It is shocking to see the creature *mauling* the delicate thing, as if he was making a dissection for lecture. What must have been Mr. Knox's disgust at the following occurrence, which he relates with becoming indignation. We admire his spirit in refusing to have any more to do with the dirty work. It is a pity he did not throw the thigh-bone at the rascal's head.

"The whole process of preserving anatomical objects in a soft state, requires a care which few persons have the slightest idea of. I remember a gentleman, who had very considerable pretensions to be ranked as a pathologist, presented to the museum a preparation of fracture in the neck of the femur. The opinions of surgeons regarding the pathology of this accident were then, as now, very various; and the number of opportunities of observing the condition of the injured parts in a recent state being comparatively few, great care was bestowed in dissecting the specimen. By-and-by the gentleman required the preparation for his lectures, and it was, according to a regulation of the Royal College, given to him. Upon being returned to me, I found it covered with dust, hairs, &c.; and, on inquiry, found that it had been removed from the jar, handed about the class on a dirty trencher, wiped by the common door-keeper, with the cloth with which the seats of the class-room had been *carefully* cleaned for the preceding week! I refused to receive the preparation into the collection." 13.

The scoundrel! But we will not trust ourselves with the expression of our feelings. The dissection of a part that is destined for spirits should be done under water, good clean water—if dissected at all on cloths, they should be fine, and very clean also—all dust and dirt must be religiously eschewed—in fact, the dissector must lay to heart good old Isaac Walton's advice for impaling a live frog—

> "Treat him tenderly, as you would your brother."

The following recommendation is worth listening to.

"In dissecting delicate preparations for preservation in spirits of wine, such as the eye, the anatomy of the fœtus, and indeed all membraniform textures, it

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* We spoke so fully of wet preparations in our last Number, that, in the present article, we shall simply introduce a few unconnected additions to those observations. We refer the reader to that Number.

will be necessary to have them fixed and under water; this is effected by having a few pudding-dishes, the bottoms of which you have previously covered with wax, in the manner as directed for making wax tablets,* only not oiling the bottom of the dish, when the wax will be found to adhere to the bottom. The advantages of this mode of preparation is, that after you have dissected and prepared the preparation under water, you can pour off the water and substitute alcohol, without moving the preparation, and thus harden it, and indeed fashion it to any form desired; and this form it will be found to keep when finally put up. If the parts are extremely delicate, the jar and tablet having been selected and prepared, the wax tablet may be used at once for the dissection, and the whole process thus conducted off-hand, and no farther change made, except the transfer of the tablet and preparation from the flat dissecting-dish to the glass jar." 16.

We shan't say a word on the modes of preventing the evaporation of spirit from the bottles. Do what we may, spirit *will* evaporate. It's consistent, as Square would say, with the eternal fitness of things—all we can do is to keep down evaporation as much as possible. We don't see that any thing material can be added to what we said on this subject in our last Number, and therefore we proceed to inquire how a preparation should be preserved in turpentine.

One great virtue of turpentine is, that it forms a specific against all insects, from the maggot to the "small black beetle." This is enough of itself to endear it to anatomists.

"All preparations which are to be preserved in turpentine must be first *dried;* and in our enumeration of the various more striking preparations, we shall particularly note those which are to be preserved in turpentine. We shall here confine our observation to the mode of securing the turpentine in the jar. In the Barclayan and Bell Collections, when put under my charge, a very considerable number of preparations were preserved in turpentine; but, particularly with regard to the former, the attempt was an entire failure, in consequence of the turpentine constantly trickling down the outside of the jar, and, when partially dry and mixed with dust, becoming a kind of paint, rendering the preparation in general invisible, and the jar itself perfectly intangible. Those thus prepared in the Bell Collection were not just so bad; and this, I observed, was owing to the superior form of the neck of the jar, and the extreme care which had been taken in inclosing the preparation. The preparations, we have remarked, are to be first dried; and therefore most of them will be found not to require *suspension*, provided the jar is properly suited in size to the preparation. Should a means of suspension be required, a portion of wood must be used, as the threads must on no account pass over the rim of the jar. These preparations should always be put up during Summer, or in a room properly heated, and the jar filled quite to the brim. A single layer of *very soft (but not putrid)* bullock's

* "Wax-tablets, made by melting common but good bees'-wax over a slow fire, and carefully mixing any colour, such as vermillion, king's-yellow, imperial blue, &c., and whilst in a fluid state pouring it out on a flat dish, previously slightly oiled. Upon cooling, it may be removed from the dish, and cut into tablets, so as to suit the jar fitted for the display of the preparation; delicate membraniform parts can be stuck on these tablets by means of bristles or common pins, and a deal of their anatomy displayed. These wax-tablets ought to be at least 3-16ths of an inch in thickness, and instead of mixing a colour the wax may be simply dyed."

bladder is then to be stretched over the top, and neatly secured with two or three circles of fine twine, particular care being taken that no air is allowed to remain between the bladder and the neck of the jar. The bladder should then be trimmed away, but not too closely, and must be so soft as to adhere perfectly to the jar.* Nothing more is required; the bladder very soon dries, imbibing a quantity of the turpentine, so as to become semi-transparent; and, if proper attention has been paid to the softness, and at the same time *goodness*, of the bladder, such as being quite sound and free from fat, there will be no trickling down the sides of the jar; and, indeed, so far as I can observe (from some preparations in my possession, and many in the Museum of the Royal College of Surgeons, and which have been standing there thus prepared by myself, for six or eight years), no change whatever on the turpentine." 21.

The second chapter is on injecting and injections. It is just as ridiculous to think of making a good injection by rule, as to attempt to manufacture a cook out of Mrs. Glasse's receipts. In fact an injector, like a poet, nascitur non fit. It would be tedious to enumerate the qualities necessary to make a first-rate artiste in this way. An eagle eye, the most unruffled coolness, and genius, natural, decided genius, are requisite. See an ordinary man with an injecting-syringe in his hand. All is fuss, trepidation, confusion, and disaster. Ten to one, he squirts the boiling injection into your eye, if you are fool-hardy enough to go near him.

All that we shall do is to subjoin the formulæ for hot and cold injections, and recommend our young friends to go into the injecting-room at their several schools, and see how the whole business is conducted. Practice only can teach them to inject. The formulæ are the following:

Size, or Minute Injection.†

Take of the best glue one pound, break it into small pieces, and into an earthen pot, calculated to contain considerably more than the actual quantity of injection wanted, put the glue, and, pour over it three pints of cold water; let it stand for twenty-four hours; then liquefy the whole by means of a gentle heat, and strain it through a flannel cloth. The colouring ingredient may be then slowly added, stirring all the time with a wooden pestle, so that no knots may be formed.

Red.	*Yellow.*
Size, one pint.	Size, one pint.
Vermilion, three ounces and a half.	King's yellow, two ounces and a half.

Blue.

Size, one pint.
Fine blue smalt, six ounces.

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* "The very singular fact of one layer of bladder preventing the evaporation of turpentine was discovered by me by pure accident."

† This is very minute injection. The subject of the part must be previously immersed for an hour or two in water at a blood heat, and it must be kept under water during the injection. The size injection does not *set* quickly, so that the operator may take his time. To fix it, either a *little* wax injection may be thrown into the vessels when pretty full *of* size, *or* what is more convenient, cold water may be run on the injected parts. The preparations are usually preserved in alcohol or turpentine.

VARNISH, OR FINE INJECTION.

Red.

Spirit varnish, eight ozs.
Turpentine varnish, one oz. } Measure.
Vermilion, one oz.

Yellow.

Spirit varnish, eight ozs.
Turpentine varnish, one oz. } Measure.
King's yellow, one ounce and quarter.

Dark Blue.

Spirit varnish, eight ounces.
Turpentine varnish, one ounce. } Measure.
Blue verditer, four ounces.

"This injection *sets* very rapidly, and requires a certain degree of heat to keep it fluid. Of course the subject also requires to be heated. Should more be mixed than is required, it will keep very well, and can be restored to its fluid state by a gentle heat, with the addition now and then of a little turpentine varnish; but I must admit that the injection is most successful when the ingredients are exactly in the proportions given above, and newly made. It fills extremely minute vessels, and is intended for parts which are to be dried, such as the *principal* arteries of the body, to shew their anatomical and surgical relations. The colouring ingredients should be previously mixed in a small quantity of the varnish with a wooden pestle, and then slowly added to the remainder, so that the whole may be perfectly liquefied and smooth. The above injection will become soft, if exposed to great heat, and would scarcely support its own weight in a preparation very minutely dissected." 30.

WAX, OR COARSE INJECTION.

Red.

Bees' wax, sixteen ounces.
Resin of best quality, eight ounces.
Turpentine varnish, six ozs. Measure.
Vermilion, three ounces.

Yellow.

Bees' wax, sixteen ounces.
Resin, eight ounces.
Turpentine varnish, six ounces.
King's yellow, two ounces and a half.

Dark Blue.

Bees' wax, sixteen ounces.
Resin, eight ounces.
Turpentine varnish, six ounces.
Blue verditer, ten ounces and a half.

All the preceding injections require the subject to be heated. The following is a form of Cold Injection, which entails no such troublesome necessity.

PAINT, OR COLD INJECTION.

The colour may be according to the taste of the anatomist, but *white* is the easiest procured, and is in every respect the best suited for this injection. All colour-shops keep the white-lead prepared, *i. e.* ready ground and mixed with oil. To a small quantity of this add turpentine varnish, until of the consistence of paint, as used by painters; a very small quantity of turpentine may be added just before injecting, and, lastly, a little water sprinkled on the surface. It is then to be injected. It will generally require two or three hours to harden.

This injection can be employed only for preparations that are intended to be dried.

We have given these formulæ, because there is much difficulty in deter-

mining the exact proportions for injection. Either it is too hard or too soft, too brittle, or too easily melted. Hot wax injections are the most troublesome things in the world to manage. Such of our readers as like may try Mr. Knox's recipes. Mercurial injections need not detain us.

Corroded preparations look vastly well, and are indispensable ornaments in a museum. But they do not last long, and they are difficult to make. After the organ to be corroded is injected with wax, it should be immersed in a solution of three parts of muriatic acid, and one part of water. Mr. Knox assures us that six weeks' or two months' immersion will reduce all the soft parts to a pulpy mass, which may be easily washed away by a gentle stream of water. Mr. Knox has been more fortunate than we have been, for we have had kidneys and livers in the solution for months without being able to get the soft parts off, while, in other instances, simple maceration in water has done the business in half the time. We cannot help thinking there is much uncertainty about the action of diluted muriatic acid on the tissues placed in it.

Hardening of the brain is useful, in order that it may be dissected. Every body knows that this may be done with spirits of wine, but every body knows, also, that spirits of wine are dear.* The oxymuriate of mercury hardens the brain, and answers tolerably well. Mr. Swan has made great use of this solution.

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* By the bye, we may say a word or two on the preservation of the brain or of other parts in spirits. Many persons imagine, that if a brain is put into spirit, that is all that need be done. This is a delusion. The membranes should first be carefully dissected off, wholly or in part. The brain should then be placed in just sufficient spirit to cover it. On the next or the following day, the spirit should be changed, for it is apt to become putrid and weak before the interior of the mass of brain is reached by it. Many is the brain, kept in one spirit, which we have seen putrid in the centre. Perhaps the spirit may require to be changed once more, when the brain is tolerably saturated, and, in a close vessel, a *very small* quantity of alkohol will continue to preserve it for an almost indefinite time.

Latterly, it has been much the practice to preserve limbs for dissection in the London schools, by means of spirit. It would be ruinous to immerse a whole limb in spirit. The method adopted is this. A long tin vessel is procured, with a groove in it, which receives a tin cover. The groove may be filled with water. The limb is placed in the tin, and a small quantity of spirit is poured on it. The cover being applied, the vapour of the alkohol preserves the limb, or indeed any preparations, which require to be frequently taken out and looked at.

For this plan to succeed perfectly, the following precautions are necessary.

First, The spirit must be frequently changed at first, until the limb is thoroughly saturated.

Secondly, The limb must be constantly looked at, and the spirit, as it evaporates, must be renewed. The best way is to keep cloths, wetted with spirit, round the limb.

Thirdly, The tin itself must be occasionally inspected, as rust is apt to end in holes in its bottom. Zinc vessels answer better than tin, but are more expensive.

A great many preparations for demonstration, or even for ordinary preservation may be kept in bottles, in which there is only a small quantity of spirit. The vapour is sufficient to keep them moist, at all events for a time.

"Oxymuriate of mercury, one ounce,
Muriate of ammonia, thirty-five grains,
Water, one pint;

the mercury and ammonia to be rubbed together in a mortar, and the water added gradually until the solution is complete. The part under preparation (a brain, for instance) will require a fortnight's immersion, but may be completed in a shorter period by substituting alcohol for the water. Should a white precipitate be thrown down during the immersion of the preparation, it must be removed by allowing a stream of water to flow over it; and this must always be done previous to finally drying, as, should any of the solution remain on the surface, crystals will be formed in abundance, which cannot be removed after being dried. Abundance of varnish and paint must follow the use of this solution, as all textures are reduced by it to one uniform colour." 39.

Mr. Knox has a sacred horror of paint, and red arterial injections. He thinks they are unnatural and dangerous. Now really we do conceive that he is rather hard on preparations, on the *mummies*, as he calls them. No doubt, if a surgeon learnt anatomy from them, he could be guilty of any thing. But they are useful things to teach from, and when anatomy has once been properly acquired on the dead body, they are very capital refreshers to the memory. We don't intend to be bullied out of our blood-vessel preparations. What would a museum be without them? Leather and prunella. Mr. Knox is very hard upon us. He first takes away our varnish—denounces paint—and abuses injected preparations of the blood-vessels. Like the people in Newgate Street, under the frightful decrease of executions, we are "losing all our amusements."

Mr. Knox is a prince of curators, but we don't think he is much of a surgeon. His first object ought to be to stick to his last. The following reasoning is very much of the post hoc ergo propter hoc kind—and smacks of Tenterden Steeple and the Goodwin Sands.

"I recollect of a practitioner in the town of Dunbar, where hernia is as common as in other places, stating that, in thirty years' practice, although called upon for his aid very frequently in cases of strangulated hernia, he had *never* once operated, and *never* had lost a single patient, having always been successful in reducing the hernia by means of the taxis. Within these few weeks, I have seen two cases operated on for strangulated hernia, and both terminated fatally, and, I must say, that the impression made on my mind by the death of these two, apparently healthy, women, is most unfavourable to the *cutting* surgeon." 40.

The surgeon may retort, that Mr. Knox is more cutting than he was. But the whole is a mere matter of moonshine, and we need not say any more about it.

THE SKELETON.

Now, if there is one thing more frequently attempted, and less frequently successful than another, it is *cleaning* bones. It is quite disgusting to look on the nasty things that some people, even some teachers, unblushingly poke under your nose. The yellow, greasy, stinking abominations are handed about with the utmost effrontery. Well, then, how are bones to be cleaned? Some people say they are to be put on the sea-shore, to which there are two material objections—for, first, the sea-shore is not always to be got; and,

secondly, if it were, it would not do:—Who is to look after the bones on the sea-shore? answer us that, Master Brook. Besides, if the sea were obliging enough to come to town, and if the bones were able to look after themselves, they would turn out brown, dirty-looking things at last. In short, bleaching bones on the sea-shore sounds very fine and romantic, and some foolish fellow having once started the idea, many other silly fellows have repeated it.

If the sea-shore is not to be procured, the sun is, at least, in this climate, for two or three months in the year. Put the bones in the sun, is a common piece of advice. Now it is the nature of bones to be greasy, on account of a certain substance called marrow—and it is the nature of grease to melt, when under the influence of heat. In consequence of the operation of this law of grease, bones put in the sun become most delectably oily, and the Gheber who has had his bones upon the leads for a month or two, finds to his delight, that, what with dirt, the influence of the atmosphere, and grease, they are scarcely worth the trouble of carrying down stairs. Let the bone-cleaner beware of the sun. Again then we say how are they to be cleaned? We cordially agree with our indefatigable author, in the following description of the process. He is a man after our own heart.

Catch your hare, says Mrs. Glass, before you skin him. Get your subject before you macerate him. But *every* subject won't do. No prudent person would take an old man, or a fat woman. Look to the grease, for there's the rub, and a rub very often to no purpose. The patient should be between twenty and forty, and some lingering disease must have caused his death, for then the marrow will have been absorbed.

"The macerating tub should be a barrel, fitted with a close secure cover, and capable of containing three or four gallons of water more than what completely covers the subject. The anatomist will take especial care to remove few or none of the muscles, particularly not to attempt, on any account, to expose the bones. For the first week the water will be tinged with blood, and ought to be completely changed every day. The muscles will now assume a soft bleached appearance, and the water will be but slightly tinged. The barrel should now be filled, for the last time, with pure soft water, and then closed. Supposing the situation to be a back area or cellar, the preparation had better not be looked at for six weeks or two months. The process, if to be completed in Great Britain, in the open air, and without the assistance of any artificial heat, will only succeed during the months of June, July, and August. Should the effect of putrefaction not be complete in six weeks, no effort will ultimately produce an unexceptionable skeleton; for if continued after this time, adipocere will to a certainty be deposited, and from the commencement of the appearance of this deposit, the bones themselves break up and rot." 43.

The bones being taken out of the macerating tub, and carefully placed in vessels filled with clean water, they should then be washed with a nail-brush and soap and water, and put into a very dilute solution of the liquor potassæ or ammonia, in which they should remain for a week or ten days. A current of water should then be allowed to play over them for half an hour, when they are to be placed in a clean tray, carefully wiped with a linen cloth, and allowed to dry slowly, by being placed in a current of air, but *excluded from the sun's rays*. They ought to be turned over repeatedly whilst drying, and at each time wiped with a linen cloth. Should the slightest appearance of oil be observed, the strength of the potass solution must be increased, the

water renewed, and, if nothing else will do, an opening made at each end of the long bones, and water injected repeatedly through them.

Mr. Knox does not appear to us to be sufficiently alive to the merits of the chloride of soda or of lime. It is indispensable for making bones look well, and it tends also to diminish their greasiness. If skilfully managed it scarcely acts on them, and even if they do afterwards crumble a little sooner, the disadvantage is amply compensated by the whiteness, cleanliness, and freedom from bad smell that it procures for them. The plan we adopt for cleaning bones is this. We take care not to scrape the bones at first, but we are not so very solicitous about preserving *much* of the soft parts. The water is changed regularly till there is no more blood. Then the bones are locked up in unchanged water, and putrefaction is allowed to go on undisturbed. At the end of a month or two we look at the bones; if they are ready, so much the better: if not, we put them back in the putrid water. So soon as they are ready, they are taken out, washed, soaked in a solution of potass, and again washed, as Mr. Knox has directed. Then they are transferred to a weak solution of the chloride of lime, in which they are allowed to remain, until by twice or three times daily trying a cancellous portion with the nail, we find that softening is impending. The bone must then be taken out immediately, and dried, *in* a draught, and *out* of the sun. They usually become beautifully white, and free from any disagreeable odour.

Bones may be always re-cleaned by soap and water and a little chloride. If they become oily, Mr. Knox suggests that they should be boiled in a solution of pearlashes and water for an hour or so, then brushed with soap and water, and dried.

Every surgeon and physician should have a set of bones, and it is a great disgrace if he does not know how to prepare them.

The fourth chapter is appropriated to sections of the cranium, and modes of displaying the structure of bone. The fifth is on the mode of articulating the skeleton. And, the sixth is on natural skeletons.

The two first are not adapted for notice here, and we must refer the reader to the book itself for information on the points which they embrace. Our object is only to direct attention to matters which should be generally known, and are generally practicable.

Natural skeletons are often made, and should be made oftener. Every surgeon ought to have natural skeletons of the fœtus at different periods of growth. Then there are natural skeletons of birds, fishes, small animals of many sorts, that may be prepared with a little trouble, and will repay the leisure time expended on them. Our readers must know how to get up natural skeletons. Let us bring Mr. Knox again on the tapis.

"Previous to the fourth week of the fœtal existence, the skeleton of the fœtus is almost entirely cartilaginous. After this period, however, daily changes take place, and the examination of the skeleton is extremely interesting and instructive. To make these skeletons, great care in every step of the procedure is necessary, and a very considerable knowledge of anatomy is also essential. The instruments required are, a pair of good and delicate forceps, a scalpel short in the blade, and extremely sharp, and a pair of scissars, also short in the blades, with the joint perfectly easy. The fœtus should be fresh, at all events if the anatomist has not had much previous experience. The fœtus being placed on a

perfectly clean board, the anatomist will make an incision along the mesial plane of the body, through the integuments merely, and he will proceed to remove entirely the integuments from the whole surface. The abdomen should then be opened, and the viscera removed. The muscles attached to the base of the lower jaw should then be carefully removed from that bone, and the tongue thus pulled towards the chest. The connexion of the hyoid to the styloid processes of the temporal divided, and the gullet and trachea, with the bloodvessels, dissected off *en masse* from the anterior surface of the neck. The sterno-mastoideus, sterno-hyoid, and sterno-thyroid muscles, being carefully removed from their inferior attachments, the anatomist may cautiously remove the diaphragm from all its attachments, and, getting hold of the apex of the tongue with a delicate hook, bring the entire thoracic viscera through the inferior aperture of the thorax. These important viscera will thus be procured in a fit state for examination, and the thorax will be entire. The muscles must then be removed with the same care as if the anatomist was examining each. The forceps being in constant use, and the scalpel and scissars alternately, every portion, when detached, should be immediately deposited on a slip of paper, so that no debris shall remain about the subject. This process must be continued until the whole muscles are completely removed. The periosteum covering all the bones must on no account be touched. With this membrane present and entire, the skeleton will be found of considerable strength, so that the extremities of the long bones may be reached, (injuring the ligaments as little as possible,) and by means of a *suitable* gimlet perforated. A wire must also be passed along the whole length of the spinal canal, and also into the interior of the cranium, so as to break down the central organs of the nervous system. The skeleton being now placed in pure water, the long bones and the cranium, including the spinal canal, is, by means of a small oyster syringe, to be most perfectly washed out. The preparation must then be placed in an ample dish full of pure water, which must be changed repeatedly whilst it continues to be tinged; and even a brush may, if used very delicately, be resorted to. A few drops of the aqua potassæ, or a little soda, may be added to the water.

The drying of this preparation must be conducted with care. If very small, it will, of course, when dry, be put into a glass jar, and should be placed extended on a board, using pins to keep it in a proper form, and prevent its contracting tendency, which is very great, in consequence of the parts in a cartilaginous state drying up almost to nothing. The ribs will require to be kept distended by means of portions of Bristol board, and the head should be filled with barley, or small dried peas, which will be easily shaken out when the preparation is dry. The preparation should be watched whilst drying, so that any error in the first adjustment may be corrected. No varnish should be used, but the skeleton, as soon as perfectly dry, put into a glass jar, and covered in with a single layer of well macerated ox-bladder." 68.

The natural skeleton of the fœtus may be preserved in spirits of wine, and no museum should be without some preserved in this way. The cartilage then does not shrink, and a more accurate notion is conveyed of the real characters of the skeleton. Preparations of the spine preserved in this manner look extremely well.

The skeletons of most small animals should be natural ones, or, at all events, should be partly natural. The great point to be observed in making all these preparations is to remove the soft parts very carefully and very systematically in the first instance, leaving the periosteum, and the attachments of the ligaments. The curator is not to tell a pupil, who is to tell a porter to dig and scrape away right and left, tearing up bone, cartilage, and ligament, with his clumsy fists. No conscientious curator will do this.

Beware how you meddle with the periosteum at first. After the necessary dissection, the animal must be put in water, and this should be changed twice daily till all tinge of blood has disappeared. Each day a little dissection should be done, and some progress made towards displaying the ligaments properly. When these are made out, the periosteum may be removed, to within a certain distance from the joint. The head should be cleaned separately. Mr. Knox recommends each extremity of the bones being perforated, without injuring the ligaments, and a wire, as large as can be conveniently introduced, passed completely through. This perforation had better be made by means of a small useful drill, thereby avoiding the risk of splitting up the bones, or the chance of the gimlet starting off the extremity of the bone, and passing through the hand or finger of the anatomist; besides, it is of importance to have a large orifice, and the drill will effect this with the greatest safety, both to the skeleton and the operator. Water is now to be injected into the interior of these bones, and the wire passed repeatedly through them until the medulla is completely washed out, and the bone becomes semitransparent. This must be done with all the long bones, otherwise upon being dried, they in general contain so much oil as to become nearly black and extremely filthy, and it will be recollected that the omission will not be easily remedied afterwards.

Maceration in clean water and dissection go hand in hand, until the joints are properly cleaned. Then the skeleton is immersed for a few days in a very dilute solution of the liquor potassæ, a careful examination of it being daily made, and if the solution becomes dirty and turbid, fresh being made. The next step is to put the specimen in a very dilute solution of the chloride of lime. A day or two of immersion in this will be sufficient, and night and morning the skeleton should be inspected. If the ligaments appear to be dissolving, or a sort of gelatinous pulp is seen on them, eschew the chloride, and set about drying as quickly as may be.

The position of the skeleton is a matter of no little consequence, but for directions and details on this head we must tell our readers to look at the book.

The skeletons of birds require, almost without exception, to be natural ones. Though many of the bones contain air, instead of medulla, yet it is a good general rule to drill, and wash out all the long bones until they become transparent. The form of the pedestal should correspond with the nature of the bird, and taste is required in arranging the attitude, and so forth. For more particular directions with respect to the skeletons of birds, and especially to those of fish, we must refer to the book itself. It will be in the hands of every body who intends to make preparations, whether in anatomy or natural history. One remark, however, may be made on the preservation of the skeleton of fishes. Alkohol has a powerful effect upon their flesh, and Mr. Knox has succeeded in obtaining the most perfect specimens, when they have been for a length of time immersed in strong spirits. With a pair of common dissecting-forceps in each hand, the flesh may be picked off, leaving the bones connected by their natural ligaments uninjured.

We now take our leave of the skeleton. The second part of the manual is occupied with morbid anatomy—with the modes of preserving specimens of altered structure.

We like Mr. Knox for his thorough-going detestation of whatever baulks a good preparation. It is sickening to see the namby-pamby listlessness of the present day. People are liberalising themselves out of everything like enthusiasm. Dandy curators talk of the opera, and are afraid of a bad smell, save the mark, because the ladies wonder what it can be which makes the room so unpleasant. Give us a right down hearty anatomist, who loves a stench for a stench's sake, and makes no bones about grubbing with the worst bones. He is the true artiste—the Ude of the dissecting-room. We fraternise, as the revolutionary people say, with Mr. Knox.

What is truth? said Pontius Pilate. It is not to be found with the scrubs of a museum—that is certain. The articulators, and all that class, are almost as great liars as grooms, which is saying not a little. It isn't merely that they tell lies—that's a trifle. They are practical, universal liars—what they do is a lie. A scoundrel of this stamp will—

"Unhesitatingly proceed to substitute the bones of other animals, when those of the skeleton which he may be putting up may happen to be unsound, or destroyed by using too great liberties with it in articulating. The non-professional, I find, are exceedingly anxious to have every thing *complete* about a skeleton, and they carry this so far as to supply with a formidable set of teeth jaws which *never* carried teeth of any kind. They will even put in a piece of wood, rather than allow any deficiency to appear. What is worse than all this, they attempt to *improve* nature, and do not hesitate to introduce an entire phalanx, or even a new toe, into the foot of an animal, merely because the foot seems *to them* ill formed. The skeleton of the ostrich, which Cuvier has represented in one of his works, must have been the handiwork of some such mechanist. It is a fact, that instances have occurred, where, because the cervical vertebræ of a bird proved troublesome on account of their number, three of four of them were unhesitatingly thrown away by the person employed to put up the specimen, and the skeletons declared to be greatly improved, in consequence of the shortened neck." 86.

Is not this infamous? Sometimes we see the most ludicrous ignorance exhibited. In a museum which Mr. Knox lately visited, in preparing the skeleton of a rickety person (the lower jaw-bone of which had been affected with an interesting and rare morbid condition, leading to the absorption of the alveoli,) he observed the mouth had been supplied with a very complete set of teeth, and the diseased state of the alveoli very dexterously repaired with putty! This is pretty well.

Mr. Knox recollects seeing a preparation "libelled,* 'case of fracture of the acromion process of the scapula,' which, when examined, proved to be simply the acromion process remaining as a separate portion of bone up to the adult period of life!" This is tolerably gross.

Preparation of diseased Bones.

Diseased bones usually require either to be preserved in spirits of wine or to be prepared by maceration. If the morbid parts come into the hands of the anatomist during the progress of the disease, as in cases of caries, necrosis, osteo-sarcoma, &c., an examination should of course be made of

* "Libelled" is the word used by Mr. Knox. The wag! Any body else would have said labelled.

them, in reference to the state of the soft parts, so that the morbid structure may be preserved as a soft preparation; should the bones *only* be deemed worthy of preservation, then maceration must be had recourse to. As the unfortunate patients subject to such diseases are generally extremely emaciated, there is less risk of adipocere being deposited in the progress of maceration; but we cannot too strongly urge upon the anatomist the fact, that the more expeditiously the process of maceration is completed, the better in all cases. With diseased bones, however, it will be recollected that the destruction of the soft parts must be *complete* before the bone is removed from the macerating dish, so that if looked at prematurely, and found not cleaned, the preparation must just be returned to the *same water*, and, if possible, brought into a warmer temperature. When all the soft parts are evidently reduced to a pulp, a gentle stream of pure water must be allowed to play over the preparation until every thing is washed away. The preparation is then to be put in a weak solution of the aqua potassæ for a day or two, and finally dried. It is essential to put every thing of this kind immediately into a glass jar, as dust (which every where abounds) completely destroys them, and it will be found that they can be *touched* by few, perhaps only with safety by the person who has prepared them. Such are the directions of Mr. Knox for preserving diseased bones. He makes one or two additional remarks worth noticing.

Caries of the spine, if recent, should always be carefully dissected, and preserved dry or in spirits of wine; for the vertebræ, if allowed to be for months in water, assume a false appearance of caries. In scrofulous caries of the bones, portions of the osseous texture often die, and, being loose, are in danger of floating away with the water, whilst the preparation is washed. Great care is, therefore, necessary.

Bones in the state of mollities ossium, if it is recent, should be cleaned in the manner directed for the preparation of the natural skeleton.

"The following pathological conditions of bones are generally preserved as *dry* preparations.

A. Fracture, if united, and of old standing.—Rickets.—Wasting of bone.—Inflammation (if the effects are extensive.)—Abscess.—Caries.—Necrosis, if of long standing.—Interstitial absorption.—Interstitial deposition.—Exostosis.—Spina ventosa.—Osteo-sarcoma.—Ivory change.—Skeleton in cases of hydrocephalus.

B. *Diseased conditions of bone preserved as wet preparations.* Fractures, if recent.—Inflammation, if recent. The preparation should also be injected.—Necrosis, if recent: inject.—Medullary sarcoma.—Cancer.—Fungus hæmatodes.—Mollities ossium, or as a natural skeleton.—Appearance of bones after amputation." 91.

Mr. Knox does not allude to the use of the chlorides for the bleaching of diseased bones. Yet it is certainly of the first consequence to be acquainted with the manner of employing them. It greatly enhances the beauty of the specimen, and may be managed so as not to injure it.

Mr. Knox chuckles vastly whenever the opportunity presents itself, for shewing that he is not quite ignorant of other things besides preparation making. He is a dentist of no small calibre. Cartwright is not fit to hold a candle to him. Who will say, after the anecdote we are about to copy, that our author is not a man learned in teeth?

" I have stated that I am of opinion that the public should be put right with regard to the erroneous belief that no one knows any thing about the teeth but the dentist, and I shall relate the following case in point.—A young woman, aged 15, applied to me for an affection of the teeth, occupying the right side of both the upper and lower jaw. The patient stated that she had suffered severely from toothach for a length of time, and that the teeth on the right side appeared all diseased. Her cheek was a good deal swollen, and her general health evidently not very good. I looked into the mouth, and found the mucous membrane present a remarkable white cartilaginous appearance; small portions only of the teeth were seen projecting beyond the gum, and these portions of teeth were of a deep yellow colour. I found I could remove large portions with my fingers, and I inquired if the patient had ever used any means for the cure of her toothach. She said that she had repeatedly applied a fluid by means of a piece of linen rag, and not being able to fix on any particular tooth, had applied it generally to the whole series on that side of the mouth. The patient had none of the fluid left, but stated that she had purchased it at a dear rate from an apothecary shop: That it destroyed any part of her clothes, and even the skin when falling on them by accident; and that when put into her mouth, it produced a hissing noise similar to a heated iron when plunged into water: That it at first relieved her of pain, by rendering the entire side of the mouth void of all sensation, but finding it so troublesome to use, she had given it up for some time. My remarks on this case are as follows:—The patient had laboured under a neuralgic affection of those branches of the 5th pair of nerves which go to the teeth. The teeth had evidently been free from blemish, and I think those which were sound, were the best I ever saw. The remedy sold her had been some powerful acid; the enamel was evidently entirely destroyed, and as the ivory part must, at the patient's age, be in an active state, the result may in all probability be some frightful tumour." 92.

Mr. Knox is generally happy in his illustrations, and this hit at the dentists is very good. Yet they may be so blind as to retort, that the case proves for them, not against them—the young woman having got the acid at an *apothecary's* shop. Some people, indeed, might think that the case shews nothing in any way, except that the young woman was a very great fool. Even Mr. Knox's consummate acquaintance with dental surgery might be cavilled at, inasmuch as it solely consisted in looking into the young woman's mouth, and finding that the teeth were destroyed. The probability of a frightful tumor following will, perhaps, be questioned by some.

One would think from Mr. Knox's book that surgery was at a very low ebb in Edinburgh. Setting aside the gross instances of pathological ignorance that he introduces, he informs us that "many persons, from a supposition that the teeth are foreign bodies, and implanted in the jaws after the manner of a nail in a board, use the most unjustifiable liberties in scarifying the teeth, not only of children, but adults." And a little farther on, he distinctly asserts that "the treatment of dislocations and diseased joints is still in the hands of the empiric." We suppose he would not say so, if it was not so. In England diseased joints are undoubtedly as little in the hands of the empiric, as any class of affections whatever; indeed, if any description of case is withdrawn from the clutches of quacks it is this. But Mr. Knox goes on to observe that "diseases of synovial membranes are admitted by all surgeons to be most important, from their extreme danger to the patient. Little is *certainly* known of their pathology; and until more

is known, their treatment must want precision." We suppose that Mr. Knox never heard of one Mr. Brodie, who has been made a Baronet, and is familiarly called Sir Benjamin. Yet we assure him that such a personage has not only lived, but is actually living, and has written a book, which some people think a good one, on these very diseases of the joints. Nay, he has gone so far as to point out the tissues in which particular affections originate, and to which they extend. Mr. Knox, in his ardour for natural history, has perhaps been imitating the ostrich, a bird which, they say, puts its head in a hole, and concludes that every thing is as dark as that.

"It appears to me (he proceeds), that the principal object to be kept in view by the anatomist in his researches after the true pathology of affections of the joints, is to ascertain in what *texture* the disease has commenced, and a few carefully recorded cases, followed by equally judiciously conducted dissections, will no doubt lead to a correct line of treatment in these at present fatal affections." 95.

Passing over a good many subjects, on which we see nothing to detain us, we pause to insert the following hint with regard to the preparation of nævus maternus.

"The only mode which I can devise of preserving the tumour called *nævus maternus* (and which in truth is simply a congeries of veins and arteries communicating with each other) is, first to wash out the blood by means of a syringe, and repeatedly changing the water in which the specimen must be first put. A quantity of spirits of wine should then be injected into the tumour, and the whole immersed in the spirit. After hardening, a section should be made, and finally put up as a wet preparation. In all cetaceous animals, we find a prodigious quantity of this remarkable structure as a natural and perfectly organized texture in them, although constituting a disease in the human subject. The late John Bell was not aware of this fact, although it was he who first discovered and pointed out the true nature of the nævus maternus, and gave the disease the name of Aneurism by anastomosis." 108.

In speaking of the preservation of diseased lung, Mr. Knox makes an observation or two worth recollecting.

"The immersion in alcohol has, it will be particularly observed, a much more powerful effect in corrugating one texture (the cellular) entering into the composition of the organ than another. In all cases the disease should be carefully pointed out by means of bristles, &c. previous to finally closing in the preparation, or even putting it amongst alcohol. I have succeeded in preserving the appearance in apoplexy, tubercles, &c. by securing a *thin* slice of the diseased lung on a wax tablet previous to being put into the alcohol; by this means I perceive the sudden corrugation of the cellular parenchyma of the lung is prevented, at all events from contracting the whole section, and the tubercles are brought prominently into view." 110.

Passing over a good many matters, we make one extract more for the edification of the accoucheurs.

"Teachers of midwifery require a very large museum to enable them to fulfil their duties to their pupils in a proper manner. I have known as much as £300. sterling given for a collection of this sort; and when we reflect that no person can say, 'I want a museum to teach midwifery (or any other branch of the profession), I shall have one made within the year,' I do not think that the sum paid was too much. Collections of this kind can only be formed gradually, and require many years' hard labour, and much expense, to render them, as I

have already remarked, fit to be consulted by any one. Casts and wax models, &c. form at present a large part of these collections, but I rather think that they are not exactly so invaluable as they were considered some years ago; I am of opinion, indeed, that the museum of most teachers of midwifery are at present made up with erroneous views; and, at all events, there are many preparations which can be of little real utility to the teaching the sound principles of that branch of our profession. Thus it seems to me that the series of fœtuses, put up without dissection, and forming so large a part of these museums, are mere store for the anatomist. The gravid uterus, as seen in most cases, I consider as so much *treasure* locked up, for the present locked up, in fact, in a double sense: first, by means of the key of the museum; and, secondly, by the walls of the uterus being entire. All specific aberrations in Nature's productions unexamined and undissected, are mere objects of curiosity; and *amusement* should never form a feature in an *anatomical* museum. I remember, in assisting to draw up a catalogue of the Barclayan Museum, I was forcibly struck with the vast number of objects of curiosity contained in the collection. Amongst others, a *glass article* kept the whole party laughing for an hour; and I recollect of a bottle actually containing a riddle, made of wood. The misfortune of these things is, that they detract the attention of the young student from matters which require the deepest reflection." 131.

All this is very sensible, and, indeed, there are no persons who can read this little manual, without deriving both amusement and instruction from it. The author is an enthusiast—a true, genuine, unmixed curator—as lively and as unadulterated as a bottle of his own whiskey. He does not affect to consider his art inferior to any other in the wide world. Out upon the bastard liberality which affects to think that there are pursuits to be compared with our own. People of this namby-pamby style of mind never do any thing good. We would not, for many a bawbee, that a second edition should expunge the pleasant little egotisms of this. They give it all its charm, and detract not one whit from its usefulness.

It will have been evident to every body that we think this a capital work in its way. We positively insist upon surgeons and students buying it directly. A second edition must come out before Christmas. But mind, Messrs. Adam and Charles Black, publishers and men of pith though you be, alter not one line of those delectable anecdotes, and the thousand and one little pleasantries, that make us chuckle as we change the dirty water of the macerating tub. Alter them not, Messrs. Black, or we will lay our critical switch about your ears, you may depend upon it.

ON UNUNITED FRACTURES.

Five Cases of Ununited Fracture, in which Excision of the Ends of the Bone, or the Seton, was employed.*

These cases are of sufficient interest to deserve a particular notice at our hands. They are contained in the American Journal of the Medical Sci-

* American Journal of Medical Science, Nov. 1835.

ences, in which they have been reported by an intelligent physician, Dr. Kirkbride. It is gratifying to observe the manner in which America is contributing her share to the stores of facts, which, rightly appreciated, form the foundation of all that is positive and valuable in medicine. Not a Number of this Journal is now published, in which American contributions to its pages are not found, and they are daily becoming more important.

We shall first present a concise account of the cases, and then offer what remarks we have to make upon them.

CASE I. *Ununited Fracture of the Femur near its middle—Excision of the Ends of the Bone—Cure.*

John M'C. æt. 26, admitted February 30, 1833. He had been in the country five years, and had suffered at first from intermittent fever. In 1828 he had two or three of his ribs broken, and in 1830 an arm, all of which united in the usual period.

On the 6th of July, 1832, he was crushed by the falling of a bank of earth, six and a half feet high, which fractured both thighs, near their middle—the right leg just below the knee—and the right patella. There was in addition, an extensive wound of the perineum. A bandage was applied to each limb; splints not more than a foot long to each thigh, and the injured leg merely kept at rest upon pillows. The limbs were examined at the end of three weeks, and the same dressings re-applied and suffered to remain till the 1st of November. When removed, the left femur was found to have united with great deformity, the ends of the bone overlapping, and the limb shortened two inches—the patella and the tibia were also firm, but no union in the right femur.*

On his admission, the right limb was one inch shorter than the left—the fragments of bone were moveable, and were not in contact, a large portion of callus had been thrown out about the seat of injury, and appeared to prevent their approximation, and rendered the deformity very striking. His general health was pretty good.

On the 23rd of March the operation of removing the ends of bone was performed by Dr. T. Harris. It was found necessary to remove a large portion of new bone, that had been deposited in the part, and which added materially to the difficulty of the operation; this done—the end of each fragment was excised by means of the chain saw, and the two ends were then readily brought into apposition—the edges of the wound were approximated,

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* This case is a fair illustration of the effects of treatment without splints, for here the short splints, applied *only* to the thigh, can hardly be considered as treatment *with* splints. How any body laying claim to common sense, and possessed of the smallest modicum of experience, can seriously countenance Mr. Radley's "anti-splint" absurdities, is more than we can understand. If an animal's thigh is fractured and Nature allowed to do her best, a pretty job she makes of it. Most frequently she unites the bone, but how? The broken ends overlap in an extreme degree, and such distortion ensues as splints are both intended and able to prevent. Persons must have a strange idea of the action of muscles who can believe that when left to themselves they will not draw the portions of the broken bone from the right line that the whole bone describes.

the limb placed in Hartshorne's modification of Boyer's splints for fracture of the femur, and the parts covered with a poultice. This was employed for three months, after which a pasteboard splint was made use of. The wound healed by the 1st of November. Early in December there was an appreciable stiffening in the limb; soon after he was directed to leave his bed, and commenced walking with crutches, the thigh being protected by the splint. On the 1st of May, 1834, he was sent into the country. In September he called at the hospital. The limb felt perfectly firm, but was less strong than the other. He used a cane in walking, and a cork sole one inch high made the length of the two limbs correspond. During the progress of the cure the patient had eight or nine attacks of erysipelas.

Case II. *Ununited Fracture of both Bones of the Fore-arm—Excision of the ends of the Bones, with partial success—Subsequent Formation of the same state of Parts—Application of the Seton—Perfect Recovery.*

Solomon M'D. æt. 24, admitted April 14, 1833. In August, 1832, both fore-arms were fractured by a water-wheel in two or three places; in the left fore-arm the middle fracture was a compound one, the bones projecting for more than an inch through his coat. The right arm was retained in splints during two months; union took place, and it gradually regained its strength. Splints were never applied to the left, but it was kept at rest upon a pillow for nearly six months, while various measures were resorted to, to remove the inflammation, &c.

On his admission, the arm was useless; the line of direction, both of the radius and ulna, was so much altered, and the fragments had passed each other so far, that neither friction nor the seton could be resorted to. The operation of Mr. White was, therefore, performed by Dr. T. Harris on the 24th of April; the ends of both bones were turned out and excised, so that upon replacing them, they were accurately in apposition. The callus thrown out between the bones, and in some measure uniting them, rendered the operation rather tedious and painful.

The arm was kept in a curved splint, but occasionally, from attacks of erysipelas, &c., it was necessary to remove all dressings and merely keep the limb quiet on a pillow. In the latter end of September the ulna had united perfectly, and the ends of the radius were in contact. But on the 13th of November he insisted on being discharged.

After leaving the house, he was employed as a drover, still keeping on the splints which he had used in the hospital. Early in July, 1834, he fell from a fence, breaking up the newly-formed callus, and suffered much pain for some time afterwards. On the 29th of October, he was again admitted into the hospital, the portions of the radius and ulna perfectly moveable, and appearing to have their ends rounded off, from the motion to which they had been subjected. As the fragments now corresponded with each other, it was determined to employ the seton, and accordingly a portion of a skein of silk was introduced between each of the ununited fractures by Dr. Harris, on the 2d of November.

In December, there was some stiffening of the radius; none of the ulna. In January there was evident stiffening of the latter.

The progress of the case was interrupted by cough, diarrhœa, and hæmoptysis; the consequence was that, at the end of February, the radius was less firm than it had been a fortnight previously.

Although he had another attack of hæmoptysis, the bones now became more firm, and on the 27th of May, when he was sent into the country, both bones were united, and he had ceased for some days to wear splints of any kind. The last seton was removed nearly three weeks before he was discharged.

CASE III. *Ununited Fracture of the Humerus near its Neck—Cure by the Seton.*

John E. æt. 24, admitted May 10, 1834. On the 25th of February, he was thrown down from a rail-road car. His right humerus was fractured obliquely, just below the head of the bone, and both bones of the forearm, midway between the wrist and elbow; splints were placed upon the arm, and it was secured to the body by means of a roller; the forearm he carried in a box padded with cotton. In two months he was able to use the forearm. The splints were kept upon the arm for six months; they were then removed, as the fracture was supposed to have united. He was never able to use it, however, and in January, 1834, met with a person, who, discovering that he had ununited fracture, proposed the use of a seton, which was accordingly tried, but finding no union at the end of eight weeks it was removed. Nothing further was done till he entered the hospital.

From an examination of the cicatrices upon the arm, it was evident that the seton had been merely passed under the integuments, and at least an inch below the edges of the separated bone. The ends of bone were easily moveable, and appeared to have a ligamentous connexion.

The operation was performed by Dr. T. Harris on the 17th of May. After making an incision down to the part, he used a strong-pointed steel instrument, with a firm handle, for perforating the ligament, and then passed a portion of a skein of silk between the fragments, by means of a long seton-needle.

On the 18th some oozing of blood.

On the 23rd, erysipelas.

On the 25th, bleeding from a vessel deep in the wound.

On the 4th of June, the erysipelas had disappeared.

On the 28th, some stiffening at the seat of fracture—four firm splints round the part.

On the 3rd of August, the seton was removed. On the 15th of September, the splints were also taken away. The bone then appeared perfectly firm.

On the 29th of October, he was discharged. The arm was strong.

CASE IV. *Ununited Fracture of the Bones of the Leg, removal of a portion of the shaft of the Fibula, and excision of the points of the other fragments—Cure.*

Felix L. æt. 30, admitted Aug. 1, 1834, with ununited fracture of the bones of the leg. On the 24th of July, 1833, he had received a compound fracture of both bones of the left leg, with protrusion of one of the fragments of the tibia. The limb was kept in splints for five months. Extensive ulceration took place,—portions of the tibia exfoliated, but no union occurred. The limb was shortened, and at times painful—the ulceration had healed—but he was only able to walk with crutches.

On dissection it was found that the fracture of the tibia had occurred two

inches and a half above its lower point—that the fracture had been oblique, and that a considerable portion of bone had exfoliated—that the fracture in the fibula was also very oblique, and just above that part which enters into the composition of the joint; after the accident the upper fragment of fibula had slipped down upon the outer side of the lower, so as to resemble on a superficial inspection, the external malleolus; and in this situation a firm ligamentous union had taken place before the process of exfoliation was completed in the tibia, the fragments of which were thus kept so widely separated, that nature was unable to repair the injury by a deposite of osseous matter.

The application of the caustic potass on the nearest point of the tibia was ineffectually tried. There was no alternative but to excise a sufficient portion of the fibula to allow the approximation of the separated fragments.

The operation was performed on the 25th of November, and the exposure of the parts confirmed exactly the views which had been previously taken. The tibia was first exposed, and the projecting points of each fragment taken off, so that the opposite surfaces might come fairly into contact. This part of the operation, showed the precise extent of fibula that must be removed to permit this approximation. The ligament connecting the two portions of fibula was next separated, and after removing the point of the lower fragment, the upper was turned out, and one and a half inches taken from its inferior extremity. The different portions of both bones then came accurately into contact with each other.

On the 8th of January, there appeared to be some stiffening of the fibula, and a few spiculæ of bone had been discharged from between the ends of the tibia.

24th. Erysipelas of the leg.

February 6. The fibula had united—no union in the tibia—the ulcerated surfaces just healing. Pasteboard splints.

In the latter part of February, a shoe, with a heel sufficiently high to make the length of the two limbs correspond, was procured for him; the limb was then enclosed in moistened firm pasteboard, which hardening, formed a complete case for the parts, and he was directed to walk and bear as much weight as possible upon the diseased limb, with a view of hastening the deposite of callus.

On the 11th of April, he went into the country, the union of the tibia not being yet firm. The pasteboard splint had been removed. After several weeks he returned. He could walk without assistance. The stiffness of the ankle-joint and the depression of the great toe, consequences of the original injury and of the treatment necessary for it, were the greatest annoyance. The shortening of the limb was remedied by a very high cork sole.

Case V. *Ununited Fracture of the Femur—Excision of the Ends of Bones—Death from Purulent Deposits in the Lung.*

Benjamin W., æt. 24, admitted Feb. 14th, 1835, with ununited fracture of the os femoris, three inches below the trochanter minor. The bone was broken on the 23d of August, 1832, by the falling of a bank of earth upon him. He had previously suffered from intermittent fever.

For the fracture, long splints were first applied, and removed at the end of six weeks, as union was supposed to be perfect. He commenced walking with crutches, the toes only of the injured limb reaching the ground, and

he soon became sensible that the fracture had not united. Violent extension was afterwards made on two or three different occasions, and the limb confined in splints, or some other apparatus for a great many weeks, but all ineffectually. His health suffered at first from the confinement, but he gradually regained his strength.

On the 4th of March, the operation of excising the ends of bone was performed by Dr. Hewson. The operation was necessarily tedious and difficult.

On the evening of the 15th he had a rigor, followed by fever and sweating. After this he had at intervals other rigors—became jaundiced—had cough, with dyspnœa—low fever—and died on the 20th.

Dissection. The two portions of the femur were in apposition; the cup-like cavity that was forming as a substitute for the joint, was about two and a half inches in diameter, and half an inch deep, irregular at its margins, covered with cartilage, and was three inches below the upper part of the trochanter major. Along the lower fragment an abscess extended to within two and a half inches of the knee; in nearly the whole of this extent the bone was denuded of periosteum, rough, and partially surrounded by pus. Three small pieces of detached bone were discovered.

There was no phlebitis found. Sero-purulent fluid in the left pleural cavity, with some yellow lymph on the pulmonary pleura. Puriform fluid in the right pleural cavity, and many purulent deposits in both lungs.

The preceding cases are interesting as a collection of facts. The main points which such cases are required to determine are two:—the causes of the want of union; and the mode of remedying it.

The causes of non-union are clearly of two kinds:—those which relate to the state of the constitution and system at large—and those which relate to the limb.

1. The constitutional causes which tend to prevent proper union in bones, are debility, no matter how induced, and the existence of some other action in the system, which seems to supersede the reparation of bone.

a. The operation of constitutional debility is very well exhibited in the following instances, both of which fell under our own observation.

Case 1. A man received a simple fracture of both bones of one leg. At the end of six weeks there was only soft union. We ascertained that he had previously been a great porter drinker. We immediately gave him a large allowance of porter, (he had previously had an ordinary quantity,) and in a very short time the union was perfect.

Case 2. A woman met with a simple fracture of both bones of one leg. She was fat, rather plethoric, and accustomed to good living. She had spasms of the limb after the accident. Her surgeon bled her freely for these. The spasms ceased—she became at once much weakened—and the bones never united.

We introduce these cases as an illustration of the principle we have laid down. Other illustrations will readily occur to the surgeon of much reading or of much experience. The subject of the fifth case in the present report had intermittent fever prior to his meeting with the fractured thigh, and that is the only ostensible cause for its non-union. Some persons ap-

pear, independently of obvious constitutional weakness, to repair fractures of bones with difficulty. It is singular that those who are peculiarly prone to fracture do not seem to exhibit more impediments than usual to its reparation.

b. The effect of some other action going on in the system has been frequently noticed in the case of pregnancy. Many instances of non-union in pregnant women have been placed on record. We have witnessed two.

Obvious constitutional debility—peculiarity of constitutional state—and the existence of some other action of importance in the economy, appear, then, to be the chief general causes of the want of ossific union after fracture.

2. The local impediments to that restorative process seem to be tolerably well established.

a. If the ends of bone are constantly disturbed, the process of consolidation is interfered with, and a false joint is the consequence. It has been found, by experiment, that if, after fracturing the thigh-bone of a rabbit, the ends of bone be rubbed on each other every day for a certain time, ossific union does not take place. Many cases of the same description have been related. It may be concluded from these numerous and positive facts, that rest is an essential element in the production of bony union.

b. Position is another element. A knowledge of the process of reunion informs us, that the more nearly the ends of bone are in perfect apposition, the more readily are both the external and internal callus produced. In the four-footed mammalia, reunion occurs with comparative facility, and extensive malposition scarcely seems to interrupt the process. We have made many experiments this last Summer on the reparation of broken bone. We have chiefly selected the femur of the rabbit as the subject of our observations, and in the museum of the School of St. George's Hospital, in Kinnerton Street, is a series of preparations displaying the phenomena that take place. No precautions were taken to prevent distortion, and the action of the adductor muscles has in all cases drawn the upper fragment greatly upwards and inwards. Yet the junction of the bones has occurred in all but one instance where a false joint formed. The preparations display distinctly the difficulty experienced in forming a good external callus, when the portions of bone overlap each other much. If, in addition to this overlapping, they are also separated by a material interval, the difficulty in question must be proportionally augmented.

It is probable that mal-position was the cause of the non-union in the first, second, and fourth, of the cases in the Pennsylvania hospital.

Want of rest and improper position are the main local causes of defective osseous union, at least in simple fractures. In compound fractures, the disturbing circumstances are more numerous; and we may observe that the reparation of compound fractures has not been sufficiently investigated.

The examination of the causes of non-union naturally leads us to the consideration of the best mode of preventing it. If general debility and the absence of sufficient rest and of proper position are the principal of those causes, the judicious invigoration of the system, and the maintenance of rest and of due position are the obvious measures of prevention. On the former we need not dwell. The successful application of the latter depends on the use of appropriate apparatus.

It is not our present object to review the various local modes of treating fractures. That would be out of place in a paper which is devoted to a short exposition of principles. But an accurate acquaintance with the anatomical changes that occur in the natural process of reparation is indispensable, to enable us to select an apparatus with propriety, and to apply it with precision. Too frequently, the surgeon merely does what he has seen others do before him, and can make no pretensions to a philosophical knowledge of the laws of growth he is assisting, or impeding.

1. The first stage of the reparation of fracture is the effusion of blood, and of its components, into the contiguous parts. The ends of bone lie amidst torn tissues and extravasated blood.

2. A certain degree of inflammatory action begins to be set up, and the tissues injected with blood, and consolidated by effusion, hem in the ends of bone, which have made for themselves a cavity. The fracture may thus be said to be included in a cyst.*

3. The periosteum of the respective portions of bone, near their fractured ends and the cellular tissue, and the contiguous muscular tissue, become agglutinated together, and of a sort of ligamentous consistence. Into this strong capsule (for a capsule it resembles) the parietes of the cyst have been converted, and it holds the bones together. The cavity is now more or less diminished by the thickening and insensible contraction of this capsule.

If a false joint forms, the process of reparation appears to be nearly arrested at this point. The capsule, indeed, becomes thicker and stronger, and bony matter is even deposited in parts of its substance. But the cavity in which the bones lie continues, and the ends of the bone become gradually rounded off by friction, and either undergo a sort of ivory transformation, or are tipped with a strong fibrous membrane.†

4. The thickening of the capsule goes on, and gradually the whole of its cavity is superseded by a fibro-cartilaginous deposit. This adheres to a deposition in the medullary cavity, at the extremity of each fractured portion. The old term callus is now applicable to the uniting material. It surrounds the ends of the bones, is inseparably blended with the vascular periosteum and adherent muscle, and forms, in the language of Dupuytren and Breschet, a clasp which binds the bones together. But it also extends between the bones, supposing (as almost always happens) that an interval is left, and adhering, sooner or later, to a deposition contained in their medullary cavities, it tends still further to unite them.

During this time, osseous matter has been deposited in the substance of the capsule, and, indeed, of the "callus." Slowly the whole is converted into bone, and then begins the modelling process of absorption, reducing the unseemly mass of new bone, new fashioning the exterior, and re-establishing a continuous internal cavity. We say little upon these points, because they are unconnected with our present subject.

It is clear, from a review of the changes which occur in the reparation of bone, that any apparatus intended to promote them, should secure rest to

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* This is very distinct in a preparation in the School of Kinnerton Street.

† There is a preparation in Kinnerton Street, exhibiting the arrest of reparation at this point, and a consequent false joint. The rabbit died on the 19th day.

the limb and apposition to the fragments, without the employment of undue pressure. If rest and apposition are secured, it is difficult to conceive what useful purpose can be served by pressure to any amount. Yet we constantly see limbs jammed and squeezed in splints as though they were in vices, and the tighter the surgeon draws the bandages, the more certain he feels, or seems to feel, that union will occur. This is a great error. The periosteum, the neighbouring tissues of all kinds, have to take on a great increase of vascularity and action. If the broken limb of an animal is injected with size and vermilion, the vessels are seen ramifying in profusion, the old arteries being increased in dimensions, and new vessels carrying red blood being developed. The process of reparation is very analogous to that of growth. What should we think of the man, who swathed in unyielding cinctures the growing cylindrical bone of a young creature, and told us it was with the view of promoting its ossification? Yet this would not be one whit more absurd than the practice constantly adopted in fractures. The mistake has evidently sprung from an imperfect knowledge of the natural mode of reparation, and from practically confounding the benefits derived from promoting apposition of the fragments, with the effects of pressure beyond that limit.

In short, if an apparatus secures comparative immobility to the bones, and keeps them pretty closely together, it does all that an apparatus can do or ought to do. When it does more, it interferes with Nature, and we may be certain that she knows her business better than a cobbling surgeon can teach it her.

But a false joint has formed, or the bones have been united by the fibro-cartilaginous substance, into which sufficient osseous matter has not been secreted. What is to be done?

The plans that have been tried may be resolved into two:—

Pressure and apposition, which keep the bones together, and secure them in the most favourable situation for union.

And the induction of more vascular action in the capsule or the callus.

Theoretically speaking, pressure is most adapted for those cases in which perfect apposition has not previously been obtained. So far as we have seen, it has succeeded best in the thigh and arm, where powerful muscles interfere with the rest and apposition of the portions of the broken bone. In some cases of non-union, the ends of bone are either actually separated, or admit of being separated to some distance from each other. It is obvious that the chances of union would be increased by whatever brought them together, and kept them so. We have not yet sufficient experience of cases of non-union, to enable us to determine precisely what are the cases adapted for pressure. But of this we may be sure. As it is the mildest and the safest mode of treatment, it should always be first resorted to. If it does not cure, still, by diminishing the space between the bones, it lightens the work for the seton or excision.

The induction of increased vascular action in the callus and the surrounding parts, has been attempted in various ways, and with various success. Rubbing the ends of the bone together—cutting down on them, and irritating them by caustic—excising them—passing a seton between them, have been tried with greater or with less success. The seton and excision have been found the most powerful, and are now generally adopted.

It would be difficult to determine the respective merits of these two

methods. The seton is only adapted for those cases in which the capsule has little bone, and in which the callus, such as it is, admits of being easily perforated. Where there is excessive malposition, the seton must be useless. Excision only promises in a case of this description to bring the bones in apposition. Excision, on the other hand, is difficult and dangerous where the bone is situated deeply amidst muscles, as the humerus and femur are. On the whole, the seton is the easier and the milder plan of treatment, and experience has proved it to be far from unsuccessful.

In the second and third of the cases before us, the seton effected a cure—in the second, after excision had failed. The former case was one of fracture of both bones of the fore-arm—the latter, of fracture of the humerus near its neck.

In the first and the fourth cases, excision was performed with perfect success. The former was one of fracture of the femur—the latter of both bones of the leg.

In the fifth case, excision of portions of the femur proved fatal. The result can hardly be considered accidental, because it is likely to follow such an operation, and must be calculated on in estimating its disadvantages.

The following is a summary of the cases and the results.

Case 1. Fracture of the Femur—Excision—Reported cure after eighteen months—necessary to use a cork sole one inch high.

Case 4. Fracture of both bones of the leg—Excision—Reported cure (not very positive) after nine months—necessary to use "a very high" cork sole.

Case 5. Fracture of the Femur—Excision—Death from Purulent Deposits on the sixteenth day.

Case 2. Fracture of both bones of the Fore-arm—Seton—Cure after six months.

Case 3. Fracture of the Humerus—Seton—Cure after four months.

One point only remains. Dr. Kirkbride observes:

"Erysipelas has been an attendant on every case of operation for ununited fracture that we have seen, with one exception, and that one survived only a short period. The same fact is noticed in many of the reports of similar cases."

We have read these cases with interest, and presented them to our readers with pleasure. If any derive an useful hint from the observations we have made on them, our object will be amply served. We are anxious to diffuse amongst the mass of the profession exact notions, and philosophical habits of thought. This is a high aim, if we do not succeed in effecting it. We leave to others the taste for the marvellous and the obscure.

Periscope;

OR,

CIRCUMSPECTIVE REVIEW.

" Ore trahit quodcunque potest, atque addit acervo."

I.

Spirit of the English Periodicals, and Notices of English Medical Literature.

ON THE USE OF TARTAR-EMETIC, COMBINED WITH OPIUM, IN CERTAIN VARIETIES OF DELIRIUM, OCCURRING AT AN ADVANCED STAGE OF CONTINUED FEVER. By R. G. GRAVES, M.D.

IN the Numbers for May and July of our Dublin contemporary, there are two extensive papers on the above subject. The first formed the substance of two lectures in the London Med. and Surg. Journal for May, 1835; but the subject is now much enlarged, and revised.

Our able author remarks, in limine, that delirium tremens in the young and sober requires very different treatment from that which is necessary in the aged, debilitated, and intemperate. Between these two extremes there are many grades and shades, requiring modifications of practice that must necessarily be guided by the skill and attention of the physician.

" Thus, some must be treated rather actively, on the antiphlogistic plan at first, and immediately afterwards opiates may be used with advantage; while in others, opiates cannot be given alone at any period of the disease, so prominently marked are the symptoms of cerebral congestion; and yet these cases cannot be cured without narcotics. How, then, are they to be exhibited? Do we possess any medicine capable of modifying and diminishing their injurious effects when given where cerebral congestion exists? Undoubtedly we do; tartar-emetic will often accomplish this desirable object, and in delirium tremens, the value of its combination with opium is recognized by every practitioner of experience. Tartar-emetic, boldly exhibited, often is itself our sheet-anchor in delirium tremens, especially when the evidence of active determination to the head is undoubted. Then tartar-emetic alone, in repeated doses, often powerfully contributes to produce tranquillity and sleep; but there are other, more mixed cases, where we cannot cure without adding opium, sometimes in larger, sometimes in smaller quantities, to the solution of tartar-emetic; and so it is with the delirium and sleeplessness so often met with in continued fever. Every one is acquainted with the indications denoting the propriety of adopting the antiphlogistic practice when these symptoms make their appearance in the commencement of fever. Then the lancet, leeches, purgatives, cold applications to the head, and, finally, repeated doses of tartar-emetic, tend powerfully to reduce vascular action, and diminish the violence of symptoms depending on cerebral congestion and excitement. Here the lancet and tartar-emetics are our best opiates, our best restoratives of tranquillity and sleep. As the fever progresses, and when we have arrived at a more advanced stage of the disease, when petechiæ or maculæ make their appearance on the skin, and symptoms of general debility, announcing the typhoid type, begin to predominate, then we must proceed with more caution, even though our patient is totally deprived of sleep, and is violently delirious. The lancet cannot now be resorted to; leeches, in-

deed, may be applied, but their effects must be carefully watched, as the patient will not bear copious depletion of any sort; tartar-emetic may, nevertheless, still be given boldly, and still will be found to answer our expectations. But if we have to contend with want of sleep and delirium at a still more advanced period of fever, we now often recognize that very combination of symptoms, the union of general debility and cerebral congestion, which, in certain varieties of delirium tremens, we have seen so successfully treated with tartar-emetic and opium; who will refuse to acknowledge the similarity between these cases of fever delirium and many varieties of delirium tremens? are there not in both, the same tremor and subsultus of the extremities; the same trembling of the tongue when the patient endeavours to put it out; the same starting and sleeplessness; the same rambling, delirium or incoherence, combined nevertheless with the power of answering rationally when spoken to; the same character of the mental wandering, for in both they are extremely apt to rave as if employed in their ordinary occupations, and as if surrounded with their usual associates; in short, can any greater resemblance exist between two diseases arising from the operation of remote causes so different? We need not, therefore, be surprised, at finding the same treatment applicable to both."

The discovery of this practice in the advanced stages of spotted fever, Dr. Graves claims as his own, and we do not know any thing to the prejudice of this claim. If this practice has "not only diminished the rate of mortality in a remarkable manner in our hospitals, but has been the means of saving many of his friends and pupils," Dr. G. may certainly congratulate himself on the discovery. The following is one of the formulæ:

℞. Antimon. tart. ..... gr. iv.
Tinct. opii..... fl. ʒj.
Misturæ camphoræ, ʒviij.
Misce, et capiat coch. j. mag. secundâ quâque horâ.

This medicine vomited the young gentleman to whom it was given; "but the success was very striking." He threw up a quantity of bile, and after the third or fourth dose he fell asleep, and awoke refreshed. As the case itself is illustrative and interesting, we shall here quote it.

"Shortly after the commencement of our present session, Mr. Cookson, a pupil at this hospital, and remarkable for his diligent attention to clinical pursuits, caught fever while attending our wards, in which many cases of the present epidemic were then under treatment. His fever was of an insidious nature, not characterised by any prominent symptom, not exhibiting any local disease to combat, or any tendency to crisis. For the first seven or eight days, with the exception of headach, which was much relieved by leeching, he seemed to be going on very well; his skin was not remarkably hot; he had no great thirst, nausea, or abdominal tenderness; his pulse was only 85; and he had sweating, which was followed by some relief. About the eighth or ninth day the pulse rose, and he began to exhibit symptoms of an hysteric character. Now, in every case of fever, where symptoms resembling those of hysteria come on, you should be apprehensive of danger. I do not recollect having ever met with a single case of this kind which did not terminate in nervous symptoms of the most formidable nature. I prescribed at the time the usual anti-hysteric medicines, but without any hope of doing good, knowing that these symptoms were only precursory to something worse. I also, as a precautionary measure, had leeches applied to his head. The fever went on, the headach became more intense, he grew nervous and sleepless, and fell into a state of great debility. On the fourteenth day of fever his tongue was black and parched, his belly tympanitic; he was passing every thing under him unconsciously; he had been raving for the last four days, constantly attempting to get out of bed, and had not slept a single hour for five days and nights. Dr. Stokes, with his usual kindness had given me the benefit of his advice and assistance during Mr. Cookson's ill-

ness, and we had tried every remedy which experience could suggest. Blisters had been applied to the nape of the neck, the head kept cool by refrigerant lotions, the state of the belly attended to, and, as we perceived that the absence of sleep was a most prominent and distressing symptom, we had been induced to venture on the cautious use of opium. It was first given in the form of hydrarg. c̄ cretâ with Dover's powder, with a view of relieving the abdominal symptoms, as well as procuring sleep. This failing in producing the desired effect, we gave opium in the form of enema, knowing its great power in the delirium which follows wounds and other injuries. This was equally unsuccessful with the former. He still was perfectly sleepless. We came again in the evening, and as a last resource, prescribed a full dose of black-drop, and left him with the conviction, that if this failed he had no chance of life. On visiting him next morning at an early hour, we were highly mortified to find that our prescription had been completely unsuccessful; he had been more restless and delirious than ever. Here was the state in which we found him on entering his chamber at eight o'clock in the morning, on the 15th day of his fever. He had universal tremors and subsultus tendinum, his eye was suffused and restless, he had been lying for some days entirely on his back, his tongue was dry and black, his belly tympanitic, his pulse 140, quick and thready, his delirium was chiefly exhibited in short broken sentences and in a subdued tone of voice, and it was now six days and nights since he had slept. Here arose a question of great practical importance. How was the nervous agitation to be calmed and sleep produced? Blisters to the nape of the neck, cold applications, and purgatives had failed; opium in various forms had been tried without the slightest benefit; if sleep were not speedily obtained he was lost. At this emergency, a mode of giving opium occurred to me which I had never thought of before in such cases. Recollect what his symptoms were at this period: quick failing pulse, black, dry, tremulous tongue, some tympanitis, excessive prostration of strength, subsultus tendinum, extreme nervous agitation, constant muttering, low delirium, and total sleeplessness. I said to Dr. Stokes that I wished to try what effects might result from a combination of tartar-emetic and opium; I mentioned that I had given it in cases of delirium tremens with remarkable success, and thought it worthy of trial under the circumstances then present. Dr. Stokes stated in reply that he knew nothing with respect to such a combination, as adapted to the case in question, that he had no experience to guide him, but that he would yield to my suggestion. We therefore prescribed a combination of tartar-emetic and laudanum in the following form, which is that in which I generally employ these remedies in the treatment of delirium tremens."

Another case of another pupil is detailed by Dr. Graves. On the 17th day of the fever, he had brown tongue and dry—abdominal tenderness—red and ferretty eyes—no sleep—constant muttering delirium, assuming the form of delirium tremens—with subsultus tendinum, &c. Dr. Graves directed the combination of tartar-emetic and laudanum to be given. He had only taken two doses when calmness took place, with relief of all the symptoms. He fell into a profound sleep, and awoke refreshed. The mixture was continued every four hours, with increasing benefit. In about a week he was able to sit up in bed, and seven days afterwards he left the hospital.

Another case is reported—that, also, of a pupil—in which the practice in question was equally successful. Since the lecture in which these cases were first detailed, many cases have been treated on the same plan by Dr. Graves, and are related in the Dublin Journal. To this source we must refer our readers for further particulars. We shall conclude this notice with the following remarks of our very talented contemporary.

"One fact connected with the cases just related is very striking, viz. the small quantity of laudanum which, in most of them, was sufficient to in-

duce sleep; a circumstance only to be accounted for by the presence of the tartar-emetic, which no doubt exerts, when given in duly regulated doses, a powerfully tranquillizing effect on the nervous system. It is also deserving of remark, that the medicine very seldom gives rise to any of the unpleasant symptoms that so frequently arise when opium alone, or any of its preparations, are given with a view of producing sleep at an advanced period of fever. The addition of one ounce of mucilage, and one ounce of simple syrup to the mixture, seems to render it less likely to disagree with the stomach. Towards the termination of fever, it not unfrequently happens that a sudden or gradual determination of blood to the head arises, and which requires a repetition of a modified system of antiphlogistic treatment, aided by blisters. This state, I have reason to believe, may be often prevented from occurring, by a timely attention to procuring sleep; for a patient in fever, who has passed several sleepless nights, is on the verge of cerebral congestion or inflammation, as is testified by headach, wandering, and the redness of the conjunctiva. Here it is that the treatment I recommend is so advantageous, when timely applied; for if it be deferred until cerebral inflammation has set in, opium in any shape is worse than useless.

I have notes of several other cases, equally strong, in favour of the utility of tartar-emetic and opium in the advanced stage of fever, but think it unnecessary to bring them forward, as the above seem sufficient for my present purpose. The particular state of the nervous system to which this combination of remedies is best adapted, may occur, along with other symptoms produced by functional or organic lesions of various organs, and which prevent it from producing the wished-for beneficial result. Thus when the belly is tense and swollen, this remedy will generally fail; but I think that I am warranted in asserting that in fevers, properly treated from the first, tympanitis may commence, but will never become considerable; for, if the attention of the practitioner be applied to this symptom the moment it begins to show itself, he can in most cases succeed in arresting its progress. I have likewise seen several cases of fever, where I expected benefit from the tartar-emetic and opium, and in which no good result followed the exhibition of these medicines: such failures must always occur with respect to every remedy we apply in disease, but they do not invalidate the evidence of facts, such as I have brought forward in proof of their frequent utility. In connexion with this subject, I beg leave to draw the attention of practitioners to the occurrence of *delirium traumaticum* in fevers, in consequence of the irritation produced by blisters, a species of delirium apt to be mistaken, especially in children, for the delirium ushering in hydrocephalus. It is unnecessary to do more than advert to this subject, as I have spoken of it at some length in the lectures before referred to. To conclude, it is right to remark, that the relative proportions of tartar-emetic and laudanum in the mixture must be varied according to circumstances.

When congestion of the brain is known to exist, or is feared, the tartar-emetic must not fall short of four grains in the eight ounces, while the laudanum should not exceed half a drachm; but where nervous symptoms predominate, the laudanum may amount to one drachm, and the tartar-emetic to two grains: no general rule, however, can be laid down, *and the practitioner must in all cases watch the effects of this medicine, from hour to hour*, until he ascertains whether it agrees with the patient or not. Where a life is at stake, we must spare no pains, and must not reject a remedy because its powers render it an instrument of good or evil, according as it is administered carefully or otherwise."

We fully concur in the justice of these last remarks; but we put it to the judgment of Dr. Graves, who is himself deeply immersed in private practice, how it is possible to watch these cases in the manner described, except in hospitals, where house pupils can be constantly in attendance? Medical practitioners must live—hardly enough, God

knows—and if all their attention is to be devoted to a single patient, from hour to hour, their other patients will murmur, and they themselves will starve! These important "instruments of good or evil," therefore, must be administered in public institutions chiefly—and only on a limited scale in private life.

Gun-shot Wound of the Face and Neck, with Rupture of the Common Carotid.

The following case has been communicated to us by our able friend Mr. Guthrie. It was mentioned by him to his class in a clinical lecture which he delivered at the Westminster Hospital. Appended to it are a few remarks by the lecturer. The case does much credit to Mr. Alcock, who had the charge of it at Oporto, and who transmitted the particulars to Mr. Guthrie. Mr. Alcock is now employing his talents with the British Legion in Spain, and is likely to prove a worthy addition to the already honorable list of distinguished army surgeons.

"S. Brannigan, private of the Scotch Fusiliers in the service of Portugal, was admitted into Hospital March 4th, 1833, a musket-ball having passed through his neck and face during the action which took place on that day at Oporto.

My attention was called to him on the field a few minutes after he received the wound. He was then lying on the ground insensible, and had evidently bled profusely. I found the ball had entered the right cheek on a level with the alveolar processes of the two last molar teeth, severely fracturing the lower jaw, and passing downwards, made its exit from the neck on the opposite side above the clavicle, grazing the shoulder afterwards. I dressed him lightly, all bleeding having stopped, and had him at once conveyed to the hospital.

On the 6th I dressed him myself—he was perfectly sensible, though there still remained some evidence of the severe cerebral shock. The neck and face were largely swelled. An enema of the sulphate of magnesia had been administered soon after his admission—cold applications over the light dressing, and a few spoonfuls of barley-water and arrow-root formed the whole of the treatment adopted at this time. He experienced the greatest difficulty in swallowing.

On the 7th, the discharge from the neck became profuse, and on the 8th, the sloughs were separating, and a great portion of that on the neck came away. On the 9th, I found there had been a little bleeding from *both* the wounds. On the 11th, hæmorrhage to a considerable extent took place from the wound in the neck, the blood seemed partly venous and partly arterial, and was apt to recur whenever he coughed, to which he was constantly liable from the pressing sense of uneasiness in the throat.

On the 12th, I found two or three ounces of blood, principally arterial, had been lost during a coughing fit—the discharge from the neck continued exceedingly copious. During the 13th and 14th, at intervals of a few hours, whenever by his restlessness or coughing he shook himself, bleeding recurred, sometimes from both wounds, sometimes from the neck, and sometimes from the cheek. Although the quantity lost each time seldom exceeded three ounces, still its constant recurrence at this period had seriously affected him. His pulse became quick and rather wiry, and he suffered from great restlessness. He was moreover exceedingly obstinate, and refused to attempt to pass any thing in the shape of medicine down his throat, and indeed the violence with which the cough sometimes succeeded any attempt to swallow, rendered it of doubtful expediency. His bowels were left open by enemas.

From the 14th to the 15th scarcely any hæmorrhage took place, but in the afternoon of that day, there was rather a profuse hæmorrhage from the cheek, and apparently from the labial artery; pressure on the ramus of the jaw, with cold applications eventually stopped it. On the 16th there was no further bleeding—the pulse had become

very languid. He had passed however a quiet night—an anodyne draught formed of tr. opii, tr. digitalis, and mist. camphoræ, was ordered to be given thrice during the 24 hours, if he could swallow it without violence.

At this period the necessity of taking more active measures to prevent the constant recurrence of bleeding, which was evidently wearing him out, was pressed more strongly upon me in proportion as all hopes of the stoppage of the bleeding-vessels by the healing process of nature weakened and failed. Nevertheless there were many contradictory and embarrassing circumstances in the case, which rendered it a matter of doubt how far any operation might be successful. It was difficult to believe that the carotid itself was wounded, for it was contrary to all our experience of wounded arteries of that calibre, that during twelve days no fatal nor indeed very large hæmorrhage should take place. Add to this the bleeding sometimes from one, and sometimes from both wounds, and I think it will be allowed that this formed a case of no ordinary difficulty. The surgeons of H.M.S. the Nautilus and Orestes, then in the Douro, as also Dr. Jebb, an experienced British staff surgeon, had very kindly taken all the circumstances of the case into consideration, and given me their opinions. They felt the same difficulties I have described in coming to any accurate conclusion on the precise source or sources of the hæmorrhage, and did not conceive, under that uncertainty, any operation justifiable. It was on this day, the 16th, a little after noon, as I was preparing to leave the hospital, that an orderly came to me in great haste to say that the hæmorrhage had returned with greater violence than usual. I hastened to him, nevertheless he had already lost several ounces of blood, and finding that pressure below on the common carotid artery effectually stopped the bleeding, I determined immediately to cut down upon the trunk of the carotid, and place a ligature on it, believing the hæmorrhage, if it came not direct from it, must at least arise from some large branch, the superior thyroid or lingualis, just as they were given off. And, at all events, it seemed to me the only chance left of preventing his death by hæmorrhage. There was not time to secure the able advice and assistance of the experienced friends I have mentioned, and therefore with those of my own medical officers who happened to be on the spot, I had him placed on a bed with his head to the light, his shoulders and head gently raised. An incision over the inner edge of the mastoid muscle, from about the level of the cricoid cartilage to within a short distance of the sternum, discovered the edge of the muscle; but I found it so firmly bound down on every side by lymph and hardened cellular tissue, that neither with my nail or the handle of my scalpel could I move it a single line, or separate it from the parts below. This separation was effected therefore with the edge of the scalpel, but instead of finding the smooth cervical fascia, and marking the omo-hyoideus passing across, there was nothing but diseased cellular tissue, hardened and altered alike in colour and texture, by the lymph thrown out in the inflammatory process that had been set up for so many days. I felt the artery feebly pulsating some time before I could see it, in which I succeeded only after removing a large coagulum of fibrine, by which the artery was laid bare at a considerable depth from the surface, in the course of the ball which I had cut across, and with a lacerated opening into it, more than a quarter of an inch in length. The vein also appeared to me to be lacerated. I endeavoured to pass a blunt needle under the artery, but found it so firmly attached to the diseased parts in which it was embedded, that nothing but the point of the knife could detach it. On the side next the trachea it was equally firmly bound, and in the endeavour to separate it, a longitudinal incision of about a quarter of an inch was made in the trachea. A little blood escaped at the same moment, the air was violently expired for an instant, and to all appearance he sank, and was in articulo-mortis. He seemed to be dying without an effort or a struggle. For

an instant I was myself paralysed from the conviction of the hopelessness of any attempt to save or restore him. A second moment's reflection, however, convinced me of the expediency of concluding the operation. I therefore immediately passed a needle through the wounded part of the trachea, and brought the edges together by a suture. The artery was next secured above and below the ruptured portion. The integuments were brought together by strapping and suture; and in a very few minutes I had the pleasure and satisfaction of seeing him rally so as to be able to speak and answer the question put to him. There was not the slightest oozing of blood, and he breathed perfectly freely. The cold lotion was continued.

With respect to the subsequent treatment, it is only necessary here to remark, that no untoward symptom was observed in the neck up to the period of its being entirely healed. Some sensorial disturbance with fever came on a few days after the operation—on his recovery from that the neck rapidly healed.

His wound in the cheek with fractured jaw was much less manageable—he was of a scrophulous habit, and sores and abscesses formed successively on that side about the glands of the cheek, jaw, and neck; and on my proceeding to Santarem with the British, he was forwarded to Lisbon, and only came under my charge again a very short time before I left Portugal, at which time, as he was about to be sent to England, I gave him a letter to Mr. Guthrie, to whose instructions on the subject of wounded arteries and hæmorrhage I owe that feeling of confidence in my own power over them; which, not only in this case, but in a larger number of amputations and wounded arteries, enabled me to undertake their performance with scarcely any assistance—under circumstances too, where, under more timid council, I might have felt hesitation in attempting to operate even with the best and most efficient assistants. There are many conclusions highly interesting which may be drawn from the facts of this case, but these I defer to a future occasion."

Since he has been in this hospital, I have cut down on the upright or ascending process of the jaw, and removed as you saw a considerable portion in two pieces of the ramus and condyloid process with the articulating surface. This has given him great relief, but the openings have not yet healed, and there is a small portion of bone to come away. In this case the jaw has not suffered from necrosis apparently, but the dead bone has been merely deprived of life and slowly separated from the living. He cannot open his mouth, from the consolidation of parts on the side of the jaw and neck, but he can protrude his tongue, and when he does so, it turns out at the right corner of the mouth; the muscles on the left side being paralysed, and evidently not in action, arising, I presume, from some injury committed on the ninth nerve, I should suppose either by the ball or in the operation. The senses of taste and feeling on this side seem to be unimpaired, certainly as to feeling, and I believe so as to taste, as I cannot make out any defect on trial.

Pathology puzzled.

A medical officer of the army lately came under the care of Drs. Theodore Gordon, Mr. Guthrie, and Dr. J. Johnson. He was about 53 years of age, and had served in the Peninsular war, where he was affected with ague, and, as he believed, liver-complaint. He had afterwards served at the Cape, where he was subject to bilious affection and dyspepsia. His regiment was stationed at Hounslow, where he became affected with distressing nausea and vomiting after taking food, with rapid emaciation, and some yellowness of the skin. He was brought to town, and carefully attended to by the abovementioned gentlemen. There was tenderness at the epigastrium, but no distinct hardness in the region of the pylorus. There was a loud bruit de soufflet, and considerable impulsion in the cardiac region. The pulse was seldom under 100 in the minute—the emaciation extreme—nausea or vomit-

ing every day after food, with ejection of bile—irritable state of bowels—furred tongue—sallow and yellow tinge of complexion—despondency and irritability. The diagnosis was obscure. The heart, the liver, and the stomach, especially the pylorus, were suspected of being organically diseased. The chief attention was, of course, directed to the stomach. Leeches, blisters, effervescing draughts were prescribed; but the unfortunate patient gradually sank and died.

He was carefully examined by Mr. Hancock, a Demonstrator of Anatomy, in the presence of several medical gentlemen, among whom were Dr. Gordon, Mr. Guthrie, Mr. Henry J. Johnson, &c. The report was, that no organic disease existed in any part of the body, and that the mucous membrane of the stomach *only* was found to be phlogosed. Dr. Johnson was not able to attend the dissection, but there can be no doubt of the accuracy of the investigation. He confesses that he never was more surprised than by this result of a *post-mortem* inspection. He fully expected that a large amount of organic disease would have been discovered. Such, however, was not the case. The event is worth recording, as a lesson not to be too confident in our pathological diagnoses! Would that every subject could be accurately examined and faithfully narrated!

ENURESIS.

A case of inability to retain the urine is related by Dr. Roots in the 4th number of St. Thomas's Hospital Reports. The patient was a young female, aged 16 years, who had recently menstruated for the first time. The enuresis had continued, more or less, for five years. She could only retain her water when sitting, and perfectly quiet. She had complete command over the rectum. She was ordered a dose of castor oil, and then to take 15 drops of the tinct. lyttæ every six hours. A blister to the sacrum. She had no involuntary discharge afterwards. The tinct. lyttæ, however, was increased to twenty minims every six hours for a few days. She was then discharged cured.

We believe the lytta to be the best remedy in such cases, and it may be taken to a very considerable extent. We have exhibited up to three or four drachms per diem, without any bad effects. A slight strangury is the signal for lessening the dose or discontinuing the medicine.

CELSUS. By ALEXANDER LEE, A.M., Surgeon. With explanatory Notes, &c. &c. for the Use of Students. In Two Volumes. Vol. II. Cox, St. Thomas Street, Borough. 1836.

Of all the ancient medical authors, Celsus is, incomparably, the most interesting, both as to elegance of language and importance of matter. If Celsus or Hippocrates were to be lost to the world, it were infinitely better to let the Father of Physic go to the flames, than his Italian successor. In all the old authors there is a prodigious deal of useless or unintelligible rubbish mixed up with what is good or true. In Celsus, there is hardly a paragraph, from beginning to end, that we could wish to be cancelled. Of all the compilers that ever lived, Celsus was probably the most judicious in selecting the grain from the chaff. He has condensed all that was worth knowing up to his own time, and in his work will be found a good deal of all that we know up to this day. Mr. Lee has conferred no trifling advantage on students and practitioners in general, by the publication of these two volumes, with clear and accurate text, perspicuous ordo, literal, but easy translation, useful notes, and a copious index. To the student, who is now examined in Celsus, this edition will be a treasure, and to the laborious practitioner, who may not have studied this elegant medical classic, the present work will offer an easy means of going through the original without difficulty, and without reference to the Dictionary. We gave a sample of the first volume. We will now do the same from the present and concluding one.

QUOMODO AQUA HYDROPICIS EMITTATUR.

Aquam iis, qui hydropici sunt emitti oportere, alias dixi. Nunc, quemadmodum id fiat, dicendum est. Quidam autem sub umbilico, fere quatuor interpositis digitis a sinistra parte: quidam, ipso umbilico perforato, id facere consuerunt: quidam, cute primum adusta, deinde interiore abdomine inciso; quia, quod per ignem divisum est, minus celeriter coit.

Ferramentum autem demittitur magna cura habita, ne qua vena incidatur. Id tale esse debet, ut fere tertiam digiti partem latitudo mucronis impleat; demittendumque ita est, ut membranam quoque transeat, qua caro ab interiore parte finitur: eo tum plumbea aut ænea fistula conjicienda est, vel recurvatis in exteriorem partem labris, vel in media circumsurgente quadam mora; ne tota intus delabi possit. Hujus ea pars, quæ intra, paulo longior esse debet, quam quæ extra; ut ultra interiorem membranam procedat. Per hanc effundendus humor est; atque ubi major pars ejus avocata est, claudenda demisso linteolo fistula est; et in vulnere, si id ustum non est, relinquenda. Deinde per insequentes dies circa singulas heminas emittendum, donec nullum aquæ vestigium appareat. Quidam tamen etiam non usta cute, protinus fistulam recipiunt, et super vulnus spongiam expressam deligant: deinde postero die rursus fistulam demittunt (quod recens vulnus paulum diductum patitur) ut, si quid humoris superest, emittatur: idque bis ita fecisse contenti sunt.

ORDO.

QUOMODO AQUA EMITTATUR HYDROPICIS.

Dixi alias, oportere aquam emitti iis, qui sunt hydropici. Est nunc dicendum quemadmodum id fiat. Autem quidam consuerunt facere id sub umbilico, fere quatuor digitis interpositis a sinistra parte; quidam umbilico ipso perforato: quidam, cute primum adusta, deinde interiore abdomine inciso; quia, quod divisum est per ignem, coit minus celeriter.

Autem ferramentum demittitur magna cura habita, ne qua vena incidatur. Id debet esse tale, ut latitudo mucronis impleat fere tertiam partem digiti; que est ita demittendum, ut quoque transeat membranum, qua caro finitur ab interiore parte: tum plumbea aut ænea fistula est conjicienda eo, vel labris recurvatis in exteriorem partem, vel quadam mora circumsurgeante in media; ne tota possit delabi intus. Ea pars hujus, quæ intra, debet esse paulo longior quam quæ extra; ut procedat ultra interiorem membranum. Per hanc humor est effundendus: atque ubi major par ejus evocata est, fistula est claudenda linteolo demisso; et relinquenda in vulnere, si id non est ustum. Deinde per insequentes dies emittendum circa singulas heminas, donec nullum vestigium aquæ appareat. Tamen quidam, etiam cute non usta, protinus recipiunt fistulam, et deligant expressam spongiam super vulnus: deinde postero die demittunt rursus fistulam, (quod recens vulnus diductum paulum patitur) ut si quid humoris superest, emittatur; que sunt contenti fecisse id ita bis."

TRANSLATION.

THE METHOD OF PERFORMING PARACENTESIS ABDOMINIS IN DROPSICAL PERSONS.

I have already stated elsewhere, that it is necessary to draw off the water from dropsical persons. I must now describe the manner of doing it. Some have been accustomed to make *the puncture* under the umbilicus, generally about four fingers' breadth to the left: some have perforated the navel itself: some have cauterized the skin first: and afterwards made an incision through the integuments of the abdomen below; for this reason, that that which was divided by fire (*actual cautery*) united more slowly.

Now the instrument is to be introduced with great care, lest a vein (*artery*)

be divided. It ought to be of such a form, that the breadth of its point should be about the third part of a finger's breadth: and it is to be passed through the membrane also, which bounds the interior part, *i. e. abdominal cavity:* then a leaden or brazen pipe is to be inserted into it, with its lips either curved outward, or surrounded with a ring about the centre, to prevent its slipping into the abdominal cavity. The portion to be introduced should be a little longer than that without, in order that it may pass beyond the inner membrane. By this the fluid is to be drawn off: and when the major part of it has been discharged, the canula is to be closed with a bit of linen: and this is to be left in the wound, if the opening had not been previously cauterized. Then on the subsequent days about a hemina should be drawn off each time, whilst any trace of water remains. Some even withdraw the canula, although the wound had not been previously cauterized, and bind a wet sponge over the wound: next day they introduce the pipe again, which the recent wound will permit, by being drawn a little apart; so that if any fluid remain, it may be discharged: they are satisfied when this is done twice."

CONTRIBUTIONS TO PATHOLOGY. By W. SMITH, Esq.

[Dublin Journal, July 1836.]

1. *Lesions of the Heart.* The first case narrated by Mr. Smith was that of an old woman, aged 90, who died suddenly, having previously complained only of debility. On elevating the sternum, air was seen in the cellular tissue of the mediastinum. The pericardium was greatly distended with blood, partly fluid, partly coagulated. The heart was thickly covered with fat, and was soft, pale, and flaccid. There was a small lacerated opening near the centre of the anterior part of the left ventricle. Air was extensively diffused throughout the subcutaneous tissue of the whole body; and the liver was so softened that a stream of water poured upon it, washed away its substance. The spleen and kidneys presented similar appearances. Upon removing the liver from the body, the division of the vena cava gave exit to nearly a table spoonful of clear transparent oil. Some oil was also collected from other organs.

2. The second contribution is the case of a female, aged 70, who was admitted into the Richmond Hospital an hour or two before her death. There was much fluid in the cavity of the pleura—heart flabby, and covered with fat—the surface of the blood was thickly covered with globules of limpid oil. The blood itself was thin and unhealthy, without disposition to coagulate. The abdominal viscera were healthy.

We have abridged these two cases much, because the discovery of rare specimens of pathological anatomy in the dead-house, without a knowledge of the symptoms during life, is of little value. In Mr. Smith's comments on these two cases, however, we have something more tangible. From these we shall make an extract.

"Bearing these circumstances in recollection, we may, I conceive, look upon the deposition of a pale, gelatinous fat, as indicative and the result of enfeebled powers of assimilation and deficient energy in the circulatory system; for between the two there is a constant relation, and if the presence of free oil in that system is to be considered as denoting a superabundance of venous blood, we have then another cause, which in addition to the peculiar state of the heart, we can assign to explain the occurrence of apoplectic symptoms in such cases. Cruveilhier, in his admirable plates of pathological anatomy, delineates the morbid appearances observed in a case of fatty accumulation upon the surface of the heart, combined with rupture of the left ventricle; and I may remark that they perfectly represent the appearances observed in the case of Newman, with the exception, that in Cruveilhier's case, the walls of the ventricles were hypertrophied. It is a disease of advanced life, and generally produces sudden death, either from rupture, which is

almost always seated in the left ventricle, or by inducing an apoplectic state; and it is singular that conditions of the heart, so opposite as hypertrophy and atrophy with fatty degeneration, should both produce apoplectic symptoms. M'Adams, in his talented essay upon the diseases of the heart, published in the 4th vol. of the Dublin Hospital Reports, observes that the explanation of the fact will probably "be found in the reflection, that anything occasioning an undue distention of the vessels of the brain, may be followed by apoplexy. This over-distention may arise from the impulse a tergo being preternaturally strong, or on the contrary it may be the result of some obstruction in front, as that arising from a contracted arterial opening, or some state of the ventricle, incapacitating it from emptying itself with sufficient quickness to relieve the brain;" and he imagines, "that although the *quality* of the blood may have some influence, it is probable that the principal causes determining an apoplectic attack, when the heart is either actively enlarged or in a state of atrophy, are mechanical, and referrible to circumstances in the heart, directly or indirectly producing a state of *congestion* of the vascular system of the brain."

The fatty condition of the heart and the rupture of its walls depend, most probably, on the same constitutional cause.

3. *Cartilaginous Transformation of the Heart.* This was found in a lunatic, 45 years of age, long subject to epilepsy, and who died during a convulsion. The vessels of the brain were distended with dark blood—the cavity of the left ventricle of the heart was slightly enlarged, and its parietes thinned. The muscular substance had completely lost its natural colour and consistence, especially towards the apex of the ventricle. It was converted into a dense, white, firm cartilaginous structure, the division of which, with scissars, required considerable force. This alteration of structure had extended to some of the carneæ columnæ. *The auricles were hypertrophied.* In this and in similar cases, the auricles, in fact, perform, though imperfectly, the office of the ventricles.

4. *Ossification of Pericardium.* A man, aged 39, subject to cough and dyspnœa, was found, on the 26th April, labouring under general symptoms of disease of the heart—countenance bloated and livid—great dyspnœa—tympanitic abdomen—feeble pulse—distended jugulars—skin yellow. He died on the 30th. On inspection, part of the splenic capsule was found to be cartilaginous—liver hypertrophied of its yellow tissue, the general size being diminished. The lungs were gorged with blood, and even were adherent to the costal pleura. There were some bony deposits in the left pleura costalis. The pericardium was united to the heart by close and old adhesions, and around the base of the organ bony matter was deposited in considerable quantity, forming an osseous belt, nearly surrounding the organ. The average breadth of this belt was an inch. This bony girdle penetrated into the substance of the ventricles, reaching, in some places, almost to the cavities. "The parietes of the auricles were increased in thickness—in some places to a quarter of an inch."

5. *Aneurism of the ascending Aorta.* A man, aged 30, was admitted into Sir P. Dun's Hospital, with general symptoms of disease of the heart of long standing. No accurate history could be obtained, and the man died next day. On raising the sternum the pericardium was found distended so as to conceal the lungs. It adhered firmly to the heart throughout the greater part of its extent. The origin of the aorta appeared dilated, and, at the base of the heart appeared two tumors, each the size of an egg, elevating the pericardium. These two tumors formed an aneurismal sac, slightly separated by a depression corresponding to the pulmonary artery, the passage of which made a kind of groove or sulcus in the sac. The left division of the sac had en-

crouched considerably on the left ventricle of the heart, diminishing its capacity. It was separated from the ventricle by a thin partition. The sac itself communicated with the aorta by a round opening, the size of a shilling, and situated about an inch from the semilunar valves, leading downwards and forwards into the aneurysmal cavity. The aorta, in the vicinity of the opening, was rough and unhealthy.

"This interesting case is a sufficient refutation of the opinion of Bertin, Scarpa, and other writers upon aneurism, viz. that this disease does not and cannot form in any part of the ascending aorta, because there is no cellular structure to form the sac."

There are several other instances recorded by Guthrie and others.

THE SKULL OF SPURZHEIM.

The Phrenological Journal for June, contains a report, by Dr. Shurtleff, of Boston, on the skull of Dr. Spurzheim. That amiable man and enthusiastic physiologist had expressed a wish, as Gall had done before him, that his skull should not be buried with his body, but be preserved as the memento and proof of his own doctrines. It *is* preserved, in a fire-proof safe, in the hall of the Phrenological Society of Boston, and the brain of the philosopher accompanies it.

The weight of the latter is considerable—amounting to 3 pounds, 7 ozs. and 1 drachm, after being deprived as much as possible of its fluids, and divested of the dura mater.

The cranium, adapted to contain so large a brain, must of course exceed the average dimensions. The following are its exact admeasurements, taken as far as possible from anatomical points.

	Inches.
" Greatest circumference (measured horizontally)	22½
— length from occipital protuberance to the frontal sinuses	7½
Distance from occipital protuberance to the naso-frontal articulation measured over the head	13⅘
— — naso-frontal articulation to superior angle of the occipital bone	7⅒
— — naso-frontal articulation to the anterior extremity of the sagittal suture	4⅕
— — occipital protuberance to superior angle of the occipital bone	2⅘
— — occipital protuberance to anterior extremity of the sagittal suture	6½
Greatest breadth of skull, measured between the temporal bones, 1 inch above the orifices of the ears	6½
Distance from mastoid process to mastoid process	5⅘
— — ear to ear	4½
— — — naso-frontal articulation	4½
— — — frontal sinuses	4⅘
— — — anterior extremity of sagittal suture	5½
— — — summit of head	5⅕
— — — superior angle of occipital bone	4⅕
— — — occipital protuberance	4½
— — — ear over the summit of the skull, in a vertical direction	14
— — — — around the lower part of the forehead	11½
— — — — — back of the skull at the occipital protuberance	9½
— — parietal protuberance to parietal protuberance	5½

Distance between the anterior-inferior angles of the parietal bones . 5⅛
Camper's* facial angle . . . . . 61 degrees."

There appear to be some slight discrepancies between these measurements and those taken in Edinburgh from the cast. But they are comparatively trivial, and our author assures us that he was exceedingly particular.

The substance of the skull is compact, with very little diploe. On the internal surface, the digital impressions resulting from the convolutions of the brain are unusually well marked.

There are some remarks on the individual bones of the cranium, to which we do not think it necessary to allude. Our readers, whether phrenologists or not, will glance with some interest at the dimensions of a skull, from whose recesses issued the most amiable, sincere, and eloquent advocacy of the science that its owner loved.

Mr. Middlemore on Pterygium.

In our Number for January last, we gave a full notice of Mr. Middlemore's essay on the above disease, which analysis has been copied into the Encyclographie des Sciences Medicales, and other foreign periodicals. The author has written to us respecting an omission which he deems of importance, as relating to the "precise seat of the pterygial production, and the mode in which it acquires an almost complete covering from the conjunctiva." The following is the omitted paragraph, which we now insert.

"In the first place, there will be seen a thin, semi-transparent layer, immediately beneath the conjunctiva—in the subconjunctival cellular membrane—in which bloodvessels are situated, which do not divide and ramify extensively, but pass onwards towards the cornea, in a direction nearly parallel with each other. This deposition increases, until, in the worst cases, it becomes a thick red mass, having a somewhat triangular figure, a flattened surface, and fibrous aspect, much resembling a small muscle. The conjunctiva becomes raised and attenuated, so as to be expanded upon its front surface, and reflected on each side upon its posterior aspect, whence it is again reflected upon the globe of the eye; so that it may be raised entirely from the sclerotica on each side; but, in the middle of its under surface, it is always adherent more or less extensively—it is, in fact, adherent, in consequence of the reflexion of the conjunctiva, on each side of its posterior surface, to the globe of the eye. Hence it may be remarked, that a probe passed behind a common fleshy pterygium, will enter a sort of *cul-de-sac*, and become obstructed at a point which will mark the line where the conjunctiva becomes reflected from the posterior aspect of the morbid production to the sclerotica."

Chronic Laryngitis—Dr. Roots.

This paper appears in the 4th Number of St. Thomas's Hospital Reports. A case is first narrated, and then follow the clinical remarks.

Case. J. Hurley, a coal-porter, aged 26 years, was admitted on the 24th Dec. affected, for two months after exposure to cold, with severe cough, with thick yellow expectoration, succeeded by sore-throat and hoarseness. The tonsils were swelled, and the arches of the palate had a livid appearance. Pressure on the thyroid cartilage occasioned

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* "Notwithstanding the prominence of the forehead, this measurement is taken correctly. Two causes combine to make this angle small in the head of Dr. Spurzheim; 1st, the great length of the face; and, 2d, the extra high situation of the ear. This is another fact which goes against the intellectual angle of Camper."

pain. The voice is heard in a hoarse whisper—the skin is hot and tongue coated, pulse 96. Bled to sixteen ozs. —blister to the throat—calomel purge. Antimonial wine and sulphate of magnesia every six hours.

28th. Can speak louder—has less pain on pressure—cough diminished—skin moist. 29th. Twelve leeches to the throat—one grain of calomel, and a quarter of a grain of ant. tart. every four hours. Jan. 2d. Voice decidedly better; but there is still some pain on pressing the larynx. He continued to improve, and the mercury was discontinued on the 5th. On the 15th he was considered to be well, and was discharged on the 19th of Jan. 1836.

Clin. Rem.—The symptoms of chronic laryngitis are commonly these:

"A hoarse, harsh cough, occasionally almost amounting to a sort of croupy, or crowing sound; the voice, too, at the same time changes: it becomes hoarse, rough, and harsh, and as the disease advances, it is often merely a hoarse harsh whisper: sometimes, indeed, it is quite sibilant, accompanied by a hissing sound; and there is also a hissing sound sometimes in respiration. The respiration is difficult and hurried. The expectoration most commonly is copious; sometimes it is only mucus, but as the disease goes on, it becomes muco-purulent, sometimes almost entirely purulent, and sometimes sanguineous, either streaked with blood, or there is occasionally expectoration, with small patches of blood. The pulse is most commonly quick; and when the disease is of long standing, it is often accompanied by great emaciation, and attended also by a considerable anxiety of countenance. Sometimes the case is attended by a very distressing perspiration. There is also commonly more or less pain in deglutition, and if you put your hand on the larynx, on directing the patient to make an effort to swallow his saliva, you notice, so far as my experience goes, that it is invariably productive of pain to a greater or less extent. I never remember to have witnessed a case of chronic laryngitis, in which this symptom was not present.

From the character of the expectoration, the emaciation, the quick pulse, and the perspiration, you will see that chronic inflammation of the larynx often simulates very closely phthisis pulmonalis. How then would you form your diagnosis? It is of the utmost importance that the diagnosis should be correct, inasmuch as the one is a case which admits of being cured, and the other, according to our present knowledge, does not. In the first place, you would judge by the degree of resonance on percussion being natural over every part of the chest, and more especially under the clavicles upon either side, the apex of the lung being the part in which, generally, tuberculous deposition commences. In addition, then, to the resonance being natural, you would, through the medium of auscultation, form your diagnosis by the state of the respiratory murmur. If the respiratory murmur was heard naturally over the whole of the chest, then you would arrive at the conclusion that the disease was situated merely in the larynx. It is often complicated, however, with bronchitis, and then you still find a good resonance, no dulness on percussion at any particular spot; but you have, to a greater or less extent over the large, and perhaps some of the small bronchial tubes, mucous, sonorous or sibilous rattle. This again is a condition which admits of being cured; and, therefore, you would make up your mind, under such a condition, that there was inflammation of the mucous tissue of the larynx, accompanied by inflammation of the mucous membrane of the bronchi."

These excellent remarks are followed by others of a similar character, respecting tuberculous deposits in the lungs, hepatization, excavations, &c. Chronic inflammation of the larynx produces, sometimes only a congestion of the lining membrane—sometimes thickening—hardening—roughness—tuberculation—ulceration. The ulceration may take place about the rima glottidis, or even in the epiglottis—about

the chordæ vocales, ventricles—the angle in front of the thyroid cartilage. Mere softening of the mucous membrane is a degeneration which Dr. R. has seldom seen.

The treatment of this complaint must be, to a certain extent, antiphlogistic. In many instances, it will be necessary to bleed once, twice, or even oftener, from the arm, besides frequent leechings. Counter-irritation, by leeches, antimony, or, what Dr. R. prefers, croton oil, will be advantageous. Dr. R. warns the student against too much reliance on counter-irritation. Leeches must be again and again applied, while there is pain on pressure of the larynx. Dr. R. prefers the croton oil to the tartar-emetic, especially in females and delicate subjects. The pustules after antimony sometimes run much farther than is intended, and sloughs form, which leave unseemly eschars on parts exposed to view, as the throat and nape of the neck.

In respect to internal medicines, he thinks the most efficacious is mercury, given in such moderate doses as to raise ptyalism in the course of a few weeks, rather than in a few days. Nauseants are of some use, in conjunction with mercury, and the best is antimony. A narcotic is generally necessary, in combination with the mercury and antimony, to allay the irritation of coughing. Opium is best, if the constipation be not troublesome—if so, hyoscyamus.

Where there is reason to suspect thickening of the mucous membrane, iodine may be employed with the mercury. The recommendation of mercury in this disease is on the presumption, that there is no strong tendency to struma in the constitution. In our prognosis, we should always bear in mind that, sometimes, a sudden spasm of the glottis snaps the thread of life in a moment.

Fatal Case of Chorea.

One of the most interesting and distressing cases that has ever occurred in our practice, long and extensive as this has been, was the following. A beautiful young lady (aged 16 years), the daughter of a distinguished military officer, lately came under our care. About five months before her death, and while in Dublin, she began to complain of some thickness of speech, as she termed it, and that her tongue seemed too large for her mouth. After some time, she observed that there were certain irregular motions in the tongue, which she could not restrain, and thus her speech was still farther embarrassed. The organ was frequently protruded beyond the lips. Gradually there came on irregular motions in various muscles of the body and limbs, till at length, when we first saw the patient, about three weeks before her death, there was scarcely a muscle in the whole frame that was free from involuntary motions in rotation. Very soon after, a great number of muscles were in action at the same time, without any order or regularity, so that she could not walk from one room to another without staggering, twisting, sideling, or even retrograding. The tongue now was actually too large for the mouth, and was frequently thrust out with great violence, which annoyed the unfortunate patient very much. She had been put on a course of purgatives, and the alvine excretions were always, even to the hour of her death, of the most horrible fetor and unnatural appearance.

The chorea at last rose in intensity to a kind of epilepsy, requiring two or three people to hold her in bed. She screamed violently, and sometimes did not sleep a wink for several nights in succession. Sedatives were employed in vain, and tonics made her worse. A few days before death, the eyes got bloodshot, the pupils dilated, and the pulse quick and strong. Leeches were applied to the temples, and one of them having penetrated a twig of the temporal artery, a great deal more blood was lost than was intended. All the symptoms were aggravated considerably. The spasms amounted almost to tetanus—the tongue was thrust out, and gnashed by the teeth, till it could scarcely be got within the mouth—the

action of the heart was tumultuous and irregular—the whole frame, in fine, became completely exhausted—the spasms ceased, and she expired without a groan or a struggle!

Such a mysterious disease and unexpected catastrophe naturally excited a strong desire, on the part of the medical attendants (Dr. Thomson, Mr. Grant, Dr. ————, and Dr. Johnson) to investigate the cause; but great obstacles presented themselves. These, however, were overcome, and the body was carefully examined by Mr. H. J. Johnson, in presence of several medical gentlemen. Every part except the spine was inspected, but no trace of disease could be discovered in any organ of the body! There were found, however, two spiculæ of bone (one rising from the orbital plate of the frontal bone on one side, and the other from the sphenoidal bone on the other side), of remarkable sharpness, and one of them nearly a quarter of an inch in length, as sharp as a needle at the point, and as a knife at the sides. These were not discovered till after the brain itself had been dissected and removed, so that we could not examine whether or not there was any increase of vascularity or other appearance in the brain, corresponding with the positions of the bony spiculæ.

It will probably be doubted by many, whether such frightful phenomena can be fairly attributed to such small matters as two sharp points of bone on the internal surface of the skull. These may not have been the cause of the disease and death of our interesting patient; but they were the only causes that could be found. It was matter of regret, that we could not get permission to examine the spinal marrow; but it is very improbable that any thing would have there been discovered, to account for the terrible train of symptoms which hurried this young creature to an early grave!

When first seen, three weeks before death, although the choreal symptoms were then of unusual severity, yet it was prognosticated that this young lady would recover; but, in fact, the disorder rose from chorea into continued epileptic convulsions for more than a week before dissolution. The case is not a little remarkable, as well as melancholy.

EXTRACTION OF A BRASS PIN FROM THE FEMALE BLADDER BY A NEW INSTRUMENT.

The following case is contained in our northern contemporary, for July of the present year. It is extracted from an Italian Journal.* We confess that it is difficult to understand exactly the construction of the instrument, although the principle on which it was intended to act appears sufficiently clear. As the case may furnish an useful hint to surgeons, we transcribe it.

Case. Maria Ghizzi, aged 16, of irritable temperament, was long tormented by intense itching along the canal of the *urethra*, which she relieved by introducing into the canal a little fork of thick brass wire, and which she used, according to the custom of the country, to pin her hair. This instrument escaping, slipped into the *urethra*; and the attempt which she made to extract it by means of a large needle, with a buttoned end, thrust it completely into the bladder.

Dr. Bianchetti procured a *cannula* of polished steel, four inches long and three lines in diameter, with one extremity prolonged in the shape of a handle, and an iron rod, the upper extremity of which ended in a transverse bar for holding it, and the lower in a pincer, the toothed blades of which were separated by a spring, while the rod was furnished with a vice moveable by a screw.

The patient being placed on the edge of the bed, with the thighs bent on the belly and parted from each other, after dilating slightly the canal of the *urethra*, he introduced the *cannula*, and injected some warm water into the bladder. He then introduced through the

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* Annali Universali di Medicina, Vol. LXXXV. p. 150.

cannula the metal rod already mentioned, and moved it in several directions within the bladder with the hope of meeting the foreign body. As soon as he felt that the little pin had fallen between the blades of the pincer, he introduced to a greater depth the *cannula*, the circular margin of which pressed the blades together and closed them. The operator then arranged the instrument in such a direction, that the foreign body occupied nearly the central portion of the cavity of the bladder—with the intention of protecting the walls of the organ from injury. Then passing along the vice of the metal rod, the screw which there rested against the upper end of the *cannula*, he, without any shock or uneasiness, drew the foreign body, which was held by the blades of the pincers, into the interior of the *cannula*, and thus extracted it without inconvenience. The patient returned immediately to her occupations.

It is extraordinary how foreign substances find their way into the urethra of the female. Mr. Thomas, of Leicester-place, was summoned to a lady by her husband, who gave a most incomprehensible account of her case. He found, on examination, that a silver tooth-pick had made its way into the bladder. We have heard of another case, in which a pin, used for braiding hair, insinuated itself into the same receptacle; and Sir B. Brodie removed several calculi from a lady, each of which had a piece of common hair for its nucleus. Industrious and unprofitable reading might, no doubt, multiply cases of this sort.

By the way, there appears to be a small degree of mystification about Dr. Bianchetti's manipulations. How did he contrive to get the hair pin into the canula? If it would go *into* that, we may be pretty sure that it would come out well enough through the urethra. In Mr. Thomas's case this was done, and a foreign substance that would go through a natural urethra, could be extracted through a dilated one. It may be said that, if a long instrument were caught crossways by the forceps, it could not be removed; but neither could it be got into a canula. In fact, unless we are utterly bothered by Dr. Bianchetti, his canula and his whole apparatus were much ado about nothing, and a simpler would answer equally well.

Temporary Loss of the Memory of Words, after an Injury of the Head.

It is well known that injuries of the head have occasionally been followed by the temporary or permanent loss of language. Perhaps the most celebrated instance is that of the Welshman, admitted into St. Thomas's Hospital. He forgot the English which he had recently acquired, and remembered only the Welsh. M. Dupuytren has related a case, in which the patient named every object, and expressed every want, by the word pa pa. He could use no other. At Antwerp, after the siege of the citadel, we saw a man who had been wounded over the longitudinal sinus. He had only one or two words at his command. His intelligence was good, the power of moving the tongue, and, apparently, of combining the action of the pharyngeal muscles and those of articulation perfect; but his memory of all language, save a few words, was destroyed. Whether he ultimately recovered it, we do not know.

Dr. Inglis has related a case of gun-shot wound of the head, in our Phrenological contemporary, which affords another illustration of the loss of language, from injury inflicted on the brain. We will give a slight sketch of the particulars, which are not, in a surgical point of view, uninteresting.

Case. A woman, æt. 33, was shot by a sheriff-officer on the 24th of Dec. 1835. The ball entered the cranium at the external orbital angle of the frontal bone. That night she had an epileptic fit, and she remained insensible till the 26th, on which day sensibility returned.

On the 29th, she was seen by Dr. Inglis and Mr. M'Keur, when she answered questions correctly, and her memory was quite unimpaired. She

complained of some pain of the back part of the head, but especially of a dull, heavy, constant pain in the region of the wound. This was increased by some degree of vertigo, which followed from assuming the erect posture. A probe was introduced into the wound, and, after penetrating about an inch and a quarter, was stopped by a splinter of bone. On passing the probe a little to the right, or towards the median line, the bullet was distinctly felt, having penetrated both tables of the bone, imbedded deep in the rugged edge of the internal one. A sufficient incision being made, Dr. Inglis succeeded, by the application of some force, in extracting the bullet. It was flattened on one side and rugged, having the impression of the bone into which it had been impelled. Several splinters were removed, and also the one mentioned above of greater size, which was pressing upon a portion of the anterior lobe of the brain. The orbitar plate of the frontal bone was also considerably injured. The wound was dressed with adhesive straps, and lint, wetted with cold water, kept applied. The pulse was 72. A purgative was prescribed.

On the 30th, there was violent pain in the back of the head—pulse 80—bowels open. On the 31st, had slept little, and still complained of the pain in back part of the head. Appears drowsy, and answers questions incoherently. The wound discharges healthy pus. No stool since yesterday. Tongue white, but moist. On the 1st of January, Dr. I. found that she had been up and eating animal food—pulse 100—pyrexia—some degree of stupor, and talked incoherently when roused. On the 2d she was insensible unless roused, when she knew every body, and understood what was said. She seemed to have lost the memory of words, and could not express her wants. Pulse 68—pupils natural.

She continued in nearly the same state for the next two days, when, after excitement she become more comatose. Pulse 60. On the 6th, much discharge took place from the wound, and a small piece of bone came away. After this, she seems to have improved, for on the 9th, the power of speech was returning, and on the 11th, she could talk slowly and with hesitation. The wound was then greatly cicatrized, and the pulse had fallen to 48.

"All the symptoms have gone on improving down to the present date (Jan. 18). Still, however, she forgets some words; and, when talking about any thing, she repeats the same words several times before she can recollect others to express her ideas in succession; and often stops short in the middle of a sentence, telling the nurse to finish it for her."

In a postcript, we are informed that the memory of words is quite restored.

It will be observed that, in this case, the loss of the recollection of words did not follow hard upon the injury, but occurred in connexion with fever, and at a period which renders it probable that inflammatory action occasioned it. In this there is nothing to excite surprise; and we cannot wonder that this, as well as many other disturbances of the cerebral functions, should occur when its structure is interfered with. Such cases are sad stumbling-blocks to those who, not content with doubting the truth of the details of phrenology, dispute its general principles, and, surrounding themselves with a metaphysical fog of generalities, are unable to discern, or unwilling to admit, the most obvious facts.

There is a practical interest, as well as a physiological one, that waits upon this case. From a careful consideration and comparison of many instances of wound of the cranium and its contents, it has appeared that, on the whole, more mischief has followed the extraction of foreign substances from the brain, than from allowing them to continue undisturbed. Unfortunately, the case before us is so indistinctly worded, that it is impossible to decide whether the dura mater was torn or not. No mention is made of its laceration, yet it seems not unlikely to have happened, when splinters of bone and a bullet were lodged so deeply as they are said to have been. Of course this constitutes a very important feature of the case, whether we regard it in a physi-

ological or a practical light, and it should not have been left in the uncertainty in which it is. The editors of our Phrenological contemporary would do well to exercise a strict surveillance on the cases and contributions of their correspondents, for some of them are jejune, if not inaccurate, and are calculated, perhaps, to bring discredit on phrenological observers.

ACUTE PERICARDITIS. Dr. ROOTS.

A case of this kind is published in the 4th Number of the St. Thomas's Hospital Reports, as a peg to hang some valuable clinical remarks, by Dr. Roots. The patient was a butcher, aged 30, admitted on the 17th Dec. who, after exposure to wet three weeks previously, was attacked with rheumatic pains about his shoulders and arms; but he did not discontinue his work. In a week, the pain settled in the region of the heart, accompanied by palpitation. He then was confined to the house—the joints of the lower extremities swelled, but did not change colour—motion was stiff and painful—surface of body covered with sweat—tongue coated and moist—thirst—confined bowels—pulse 98, and hard—respiration hurried. "A very distinct rubbing sound may be heard over the region of the heart." No medicines or means had been used. He was bled to eighteen ounces, and had five grains of calomel every six hours, after an aperient. The blood was buffed and cupped.

The next evening, the breathing was oppressed, and the cardiac pain increased. Again bled to 12 ounces.

Dec. 19th. The bowels are much relaxed. The pain in joints and region of the heart diminished. The calomel omitted, and half a grain of opium given every four hours. 20th. The calomel was again resumed every four hours. 21st. Much the same, but has cough, with frothy expectoration of mucus. The rubbing sound of heart continues. The bowels being much relaxed, the calomel was omitted.

"Dec. 22. Has slept but little during the night, and talked incoherently. The swelling of the joints has diminished considerably, but he is still unable to move them on account of pain. The breathing is still rather short and the cough increased. The rubbing sound is slightly lessened. The purging has diminished and the tongue is less coated. He is now in a profuse perspiration. Pulse 96. *Applic. Hirud.* xij. *reg. cord.* ℞. *Hydr.* c̄ *Cret.* gr. v. *Op.* gr. ¼ *4tis hor. Inf. Catech. Comp.* ℥j. *cum sing. dos pilul.*

Dec. 23. Has had a restless night and talked incoherently. The bowels continue purged. The tongue still covered with white fur, except a streak down its centre and its tip, which are reddish. The action of the heart is irregular, intermitting at almost every third beat, and he has rather more pain on pressing up the diaphragm and taking a deep inspiration at the same time. ℞. *Infus. Catech. C.* ℥ij. *sing. dos. pilul.*

Dec. 24. The bowels have only been relieved twice since the last report, and the tongue remains coated, its tip brown, and the central streak assuming the same character. The rubbing sound is less distinctly heard, but the pulse continues irregular, about 90, and will not bear much pressure. The cough has considerably increased, and the respiration is loud and sonorous. *C. C. ad* ℥iv. *reg. cord. Adhib. Cuc. Sicc. pectori et postea Emp. Lytt. amplum.*"

From this time he gradually but slowly recovered, and was discharged on the 9th Feb.

Dr. Roots remarks that this case offers an answer to those, who say that "bleeding in acute rheumatism gives rise to inflammation of the pericardium." We confess that we never heard such an observation made. We have often, indeed, said, and we still believe, that acute rheumatism will not bear bleeding in the same way, and to the same amount, as common inflammation, say of the pleura; nor will it be cured by bleeding alone. We have seen many instances, also, where large sanguineous depletions appeared to produce metastasis, especially when syn-

numbers of cases of rupture in the better classes, the complaint being one that they endeavour to conceal. When we see that bodily exertions are constantly producing hernia; when we reflect that the lower classes must, ex necessitate, make such; and when we observe, as every surgeon must do in practice, that the cases which he himself witnesses are proportionally more numerous in the class in question than in any other, it is difficult to avoid arriving at the conclusion, although not demonstrably confirmed, that the general belief, drawn from general experience, is correct. Demonstration is an excellent thing; but where the nature of the case does not permit it, we are forced to form our opinions upon evidence less satisfactory. Of course the farther that evidence recedes from the demonstrative kind, the more suspicious we must be in its reception, and the less confident in its absolute accuracy.

3. Is rupture more prevalent in males than in females—on the right side of the body than on the left? It is commonly believed to be so. Here again general experience has pronounced an affirmation, and general experience, on mere matter of fact, is seldom very wrong. We have certainly seen hernia much more frequently in males than in females—it is more frequently the subject of hospital operations in the former than in the latter—and we would almost go so far as to assert, that for one hernia on the left side we have found two upon the right. But on these points there are *some* data.

In the first place, to revert to the memoirs of the French Academy of Surgery. Out of 7027 women in the Saltpetriere we find only 220 ruptured; while out of 7437 men we find 388 ruptured.

The following additional facts are quoted by our author.

"From a Report of the City of London Truss Society for the year 1814, it appears, that of 7,599 persons to whom that institution had afforded relief from the period of its first establishment, 6,458 were males, and 1,141 females.

The new rupture society had relieved 3,505 males and 565 females, but I cannot consider this as affording any data for establishing the relative frequency of hernia in the sexes; it merely shews that more males apply for relief than females, a circumstance every one must know very likely to happen in hernia.

In respect to the ratio of occurrence on the right or left side, the following table exhibits all I am acquainted with on the subject.

Tabular view of the comparative frequency of inguinal and crural hernia on the right and left sides.

Of 7,599 cases of hernia there were, of

Inguinal Hernia,	Males,	2567	Right side.	1469	Left side.
do.	Females,	20	do.	14	do.
Femoral Hernia,	Females,	264	Right side.	246	Left side.
do.	Males,	47	do.	38	do.

Ratio, according to the Report of the New Rupture Society.

Inguinal Hernia,	Male,	1563	Right side.	927	Left side.
do.	Female,	51	do.	34	do.
Femoral Hernia,	Female,	139	Right side.	93	Left side.
do.	Male,	19	do.	11	do."

The numbers of hernia on the left side, not stated in the table, are, of course, the remainder, after deducting the numbers on the right side from the total amount.

It is generally believed that the greater frequency of hernia on the right side, arises from the more severe exertions made with that side of the body. Dr. Knox, however, appears to believe that it depends on a greater size of natural apertures, &c. on that side. The following are his principal grounds for this opinion.

"There is an anatomical structure which when present seems to me posi-

tively to predispose greatly to hernia, I mean great width of pelvis, and consequently increase in measurements of this cavity whether male or female. I remember examining the pelvis in a male who had double ruptures on each side, that is an inguinal and ventro-inguinal and femoral hernia on both sides; the size of the pelvis was much greater than is usually met with in the male, in fact it approached that of the female in all its dimensions, but before it was practicable to measure it when stripped of its soft parts, and then compare it with others, the specimen was lost. My impression was, that it nearly equalled in all its dimensions a full-grown female pelvis. Moreover, in two cases of strangulated crural hernia which I had occasion to see in the male, the pelvis in both was much larger than usual, in fact it approached the female in its dimensions. I regret exceedingly that I had no opportunity of measuring the pelvis in these cases; but from what I have seen I feel disposed to think, that an unusual size of pelvis in the male is a frequent predisposing cause of inguinal hernia, and when extreme, even of crural hernia, which is not so uncommon in the male as some have supposed. The hernia had not been detected during life in the two cases I speak of, and they died in consequence of strangulation."

"I next attempted to ascertain, by measurement, if the right side of the pelvis has a greater development than the left, and what ratio; but after several attempts I found it extremely difficult to prove by the compasses to how much the difference amounted. It was obvious that in the specimens examined, by far the greater number shewed a greater width of pelvis on the right side than on the left. I speak of the measurement from the *symphysis pubis* to the base of the anterior and inferior spinous process of the *ilium*; whilst in a few the left side was rather the wider, and in others the parts were quite symmetrical. I found the same discrepancies in regard to the *foramen obturatorium*. But there is a form of male pelvis, frequent enough, and which convinces me that there is a tendency to a greater development of the pelvis on the right side. The form of which I speak is one where the left *ramus* of the *pubis* descends almost straight to meet the corresponding *ramus* of the *ischion*, whilst on the right side the ramus arches widely out, producing a singular want of symmetry in the arch of the *pubes*. The same want of symmetry happens not unfrequently with the clavicles, which may be the reason why, generally speaking, the surgeon finds more room above the right clavicle for the ligature of the corresponding subclavian artery than above the left, which not unfrequently is smaller, shorter, and less arched. I have subjoined outlines of the three extreme forms which the arch of the pubes assumes, fig. 1st, (Plate II.) shewing the perfectly acute or pointed arch, a form, I presume, which induced M. Meckel to call it the 'angle of the pubes' in the male; 2d, The rounded arch of the well-formed female pelvis; 3d, The symmetrical or hermaphrodite pelvis, in which the two sides are formed on different plans,—the right almost uniformly presenting a much greater capacity than the left side, but which difference, for obvious reasons, can scarcely be ascertained by actual measurement. This form of pelvis is by no means unfrequent in the male."

We have taken the liberty of running together these two quotations, although they are disjoined in the paper. They display our author's ideas upon the subject. It appears to us that an increase of width on one side of the pelvis, so indefinite as not to be susceptible of determination by measurement, will with difficulty account for the much greater frequency of hernia on that side. It must be remembered that inguinal hernia is the ordinary form in the male, and it is extremely doubtful if *such* a cause would sufficiently explain that. For our own parts, we incline to the ordinary explanation of the fact

What is the proportion of the different varieties of hernia to each other? On this point we do not appear to have very extensive data. Dr. Knox copies the following statements from M. Clo-

quet. This surgeon dissected 457 cases of hernia, and amongst these there were only 3 in men, "umbilicales et de la ligne blanche," in other words, of 457 cases of hernia, selected from many thousand dead, M. Cloquet met with three only in man, "umbilical and ventral." Of 7999 cases relieved by the London Truss Society, there were only 44 ventral. These statements are in reference to a declaration on the part of Mr. Marshall, who, in reference to the disabilities of recruits from hernia, has observed that, out of 82 cases of hernia, he found 50 to be ventral and umbilical—a monstrous discrepancy from the observations of all other surgeons.

TIGHT LACING.

In a clever little work recently published by an intelligent surgeon—Mr. Coulson, there is a chapter dedicated to tight lacing—chiefly taken from a work by Professor Soemmering, on "the Effects of Compression of the Waist by the *Use (?)* of Corsets."* Every one knows that the thorax is, naturally, of a conical form, the apex being uppermost. Now the shape of a lady's (or, indeed, of a gentleman's) stays is quite the reverse—their narrowest part being below—that is to say, the smallest diameter of the stays encompasses the largest part of the chest, and *vice versâ*. Further, the stays are hard or stiff below, where the abdomen is or ought to be moveable.

"The use of the stays, when they have the least effect on the chest, produces compression of the soft parts below, and throws up the viscera of the abdomen towards the chest.

Not only will the moveable false ribs be pushed upwards, and close together, and the space between them diminished, but they will be so pressed, that those of the right side will be brought nearer to the left, not only at their anterior extremities (the last, perhaps, excepted on account of its shortness), but also at their extremities towards the spine. In consequence, the inclination of the false ribs generally must increase, and their cartilages be more bent; for the cartilaginous parts yield most readily, and the bony parts, on account of their elasticity, yield also a little.

If the compression be carried further, the lower true ribs will be carried upwards towards one another; the right will be carried towards the left, the sternum will ascend, and when the pressure is increased, the sternal extremities of the lower true ribs will necessarily be brought nearer to the spine, and the diameter of the chest, from before to behind, be diminished.

Whilst this is going on with the ribs, the bodies of the vertebræ are somewhat raised, their spinous processes gradually become more oblique, and pressed on one another, and at last the spine becomes bent.

Superiorly, the thorax naturally becomes smaller. The fifth and sixth ribs do not further suffer from the immediate pressure of the stays, but commonly form more or less of a circle round the chest. In the remaining upper ribs, the contrary, to a certain degree, is the case: the ribs are pressed from one another by the internal viscera; their interspaces are greater; the right is somewhat separated from the left; and their sternal stand off from their spinal extremities.

To the act of breathing, the first, second, third, and at the utmost the fourth ribs, contribute: it even appears as if they were more moveable.

To this space are the breasts, with the surrounding parts, pushed upwards, and such persons appear to have larger breasts, but some part of these organs usually suffers from the pressure.

The shoulder-blades are sometimes brought closer to one another behind; and their under part is pressed towards the spine; the back loses its fine rounding, and the arm is impeded in its free motion. Hence, when a tight-laced person, while sitting, reaches over, she must move the whole upper part of the body on the hips."

If all these changes take place exter-

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* Ueber die Wirkungen der Schnurbruste.

nally, what must the internal organs suffer? The lower portions of lung are compressed—the circulation is impeded—the diaphragm is pushed up forcibly, and embarrassed in all its motions. The viscera of the abdomen suffer. The stomach is compressed, and bad digestion follows. The duodenum is pushed upwards unnaturally, and the function of the liver is impeded. The rectum, uterus, and bladder are forced lower down than is natural. From two measurements, Soemmering found that, "in a fine girl, the circumference of the *head* was twenty-two Paris inches; while the circumference of the waist, with the stays on, was 21 inches and a mere fraction." In another girl, the circumference of the head was 18 inches, and that of the laced body was 15 inches! In this last, the circumference of chest, at the arm-pits, was 39 inches. The body was, in this young lady, three inches less in circumference than the head!

Soemmering has collected from various authors, and with true German industry, a catalogue of the diseases or disorders produced by tight lacing—and they amount to the frightful number of—NINETY-SIX! Many of them, too, are amongst the most formidable and fatal maladies to which flesh is heir! We need only glance at a very few of these, viz. carotidean aneurism, cancer, asthma, hæmoptysis, pulmonary abscess, consumption, hydrothorax, scirrhus of the pylorus, dysentery, jaundice, cancer of the womb, &c. &c. Amongst numerous evils enumerated by the Germans, as attributable to tight lacing, is "ugly children." It is also to be borne in mind, that habit renders the tight stays necessary; for ladies, after 15 or 20 years, are so dependent on them, that they cannot keep themselves erect without them.

The injurious effects of tight lacing are hardly exaggerated by Soemmering or Mr. Coulson; for the abdomen and thorax are so much compressed by the stays, that the ribs cannot rise nor the diaphragm descend at each inspiration. Neither digestion nor assimilation can, therefore, be properly carried on, and many of the corporeal functions must necessarily languish. The lower lobes of the lungs being compressed, there must naturally be a greater onus thrown on the upper lobes, especially in singing, dancing, &c. And this, we apprehend, may be one cause, especially among the upper classes of females, why we generally find the lower lobes hepatized, in those who die of consumption. This same tight lacing is considered essential to a fine figure, and yet we never could discover any marks of stays in the statues of the Medicean Venus or Belvidere Apollo. Whether the modern girdle possesses any of those attractions attributed to the cestus of Venus, we will not pretend to determine: but we venture to aver that the Cyprian Goddess was not in the habit of drawing her zone so tight as the modern fair ones are, else the sculptor would have recorded the cincture in Parian marble.

Tight lacing is not confined to the female sex. Let any one look around him in the streets, the theatres, the ball-room, &c. and he will acknowledge that the beaux are nearly as tightly girt as the belles. The mania pervades the dandy creation, from the Neva to the Hellespont. The HUN and the CROAT have their upper regions as nearly severed from their netherlands, as the Gaul and the Italian. John Bull has caught the phrenzy, though his well-stuffed paunch makes a desperate resistance to the girdle-mania of the Continental fop.

The public are indebted to Mr. Coulson for bringing this subject prominently forward at the present time.

POISONING BY CANTHARIDES.

In the Jamaica Physical Journal, for May, 1835, Mr. Maxwell, surgeon to the Annotto Bay Marine Hospital, has related the cases of three negroes, accidentally poisoned by cantharides. They did not die, and we shall greatly abridge the details.

It appears that six drachms of finely-powdered cantharides had been macerated for eight hours in a bottle of rum.

The contents of the bottle were divided pretty equally between three negroes, though, as it afterwards turned out, three drachms of the powder remained untouched at the bottom of the bottle. This was at 8, p.m. of the 16th. One of the negroes had previously eaten his supper—the other two supped immediately afterwards.

In a short time they complained of sharp lancinating pain of stomach, burning sensation of the throat, with great nausea, which increased, and in a couple of hours they were seized with violent retching; the contents of their stomachs were mixed with blood, mucus, and froth.

The kernels of six antidotes *(Feuiella Cordifolia)* were boiled in a pint of water, and given to each by the black dispenser, which acted as an emetic.

Early next morning Mr. Marshall saw them. "They are all complaining," he says, "of excruciating burning pain in the region of the stomach; surface covered with cold clammy sweat, sense of constant burning of the throat, most intense at the top of the œsophagus, and descending along that passage to the stomach. There is great difficulty in swallowing, and to use the significant expression of one of them, his throat is on fire. There is great depression of the vital powers*—they are cessantly moaning, and consider death to be inevitable; pulse accelerated about twenty beats in a minute, and rather weak. The breathing is not difficult, nor do they complain of any irritation of the urinary organs; no pain or tension of the abdomen: the bowels have not acted since they took the poison. The vomiting recurs at intervals, and they eject frothy mucus in great quantity, tinged with a vermilion colour. They are regularly salivated, spitting incessantly a mixture of mucus and saliva of a pink colour. The throat of each was examined, and found to be swollen; had an erysipelatous blush of inflammation, with turgid veins running across the fauces. To be perfectly satisfied that every particle of the powder was removed, I administered twenty grains of the sulph. of zinc to each, which acted instantaneously: they drank copiously of warm water, and after their stomachs were settled, three ounces of fine olive oil was given to each, which they retained. Enemata of the infusion of ochro *(Hibiscus esculentus)*, with castor-oil, ordered to be exhibited frequently, and the infusion to be drunk ad libitum."

At 1, p.m. they had had no recurrence of vomiting, and one had had a copious stool, unmixed with blood. *Two ounces of castor-oil for each.* This operated on all without producing blood.

Evening. They spit mucus and saliva tinged with blood incessantly. Constant burning pain in the stomach—much difficulty of swallowing. Pulse of two 100—of the other 80. Blooded to eighteen ounces. Applic. emplast. lyttæ regioni gastrici. The enemata were directed to be given occasionally, and the ochro tea to be used as a common drink.

After the bleeding, the gastric symptoms in all were moderated, but strangury became developed. The throat, and even gums, displayed in all more or less of inflammation, and even sloughing, and a copious discharge of saliva ensued. We think it is useless presenting any farther details. In two or three weeks, all the patients had perfectly recovered.

It is evident that the cantharides acted more as a local irritant, than as a poison to the general system. The inflammation of the mucous membrane of the stomach, œsophagus, pharynx, and even mouth, was clearly the result of the application of the fly. Its injurious influence appears to be principally exerted on the mucous and cutaneous tissue. As, when absorbed, it is discharged by the urinary apparatus, we cannot wonder that it should occasion strangury. It is singular that

* "Cantharides in powder, taken into the stomach, acted as a corrosive, producing vomiting, the discharge of much bloody mucus, depression of the vital power, and death.

The stomach is always violently inflamed, and the bladder sometimes."—*Orfila, Traité de Poisons.*

these negroes only suffered from this symptom after the venæsection. Was this owing to the additional activity of absorption produced by that measure; or was it due to the blisters which, at the same time, were applied to the skin? We confess that we should be rather averse to their employment on a similar occasion.

M. Breschet's Operation for Varicocele.

Our surgical readers are, no doubt, well aware, that a great number of plans have been devised, and that not a few have been actually employed for the cure of varicocele. The veins have been tied, divided, made to slough by the application of caustic, subjected to pressure, and the result has hitherto been that surgeons, after all, have arrived at the conclusion, that the best way of treating the complaint is not to meddle with the veins at all.

But so long ago as December, 1834, a correspondent of our contemporary, the Medical Gazette, discovered that the apprehensions of surgeons were a bugbear, and announced that the honour of discovering "a radical treatment" for varicocele, had been reserved for M. Breschet. "This distinguished surgeon," wrote our contemporary's friend, "has, in fact, devised a plan, simple as it is ingenious, by which the most inveterate scrotal and spermatic varices are completely and expeditiously removable." We intended, at the time, taking notice of the subject, but it escaped our recollection, and has recurred to us in consequence of seeing it recorded in the American Journal for November last. Before we make any further observations, we will extract sufficient to enable our readers to perceive what M. Breschet's method actually is.

The principle on which it is founded is to obliterate the affected vein by compression.

"The compression was at first produced by small iron pincers, the pressure of which always equal, and resulted from the simple elasticity of the branches of the instrument. But the difficulty of using these pincers, their occasionally too great pressure, and the impossibility of padding their metallic surfaces, induced M. Breschet to use in their stead others so formed, as to permit the part destined to come in contact with the scrotum to be covered with soft linen, or leather, and the pressure to be graduated at will, by means of screws.

The instruments were at first applied on the veins of the scrotum, at the extremity of two of the most voluminous of them; care being taken to leave no considerable anastomosis between the two points compressed. Their presence determined slight local pain, and the trifling inflammation which followed, was combated by emollients, resolutives, and repose. On a second application, the pain was much less considerable; the graduated compression caused a thinning of the skin, and, bringing the two opposed portions of that membrane into contact, produced a dry eschar, solid, thin, and transparent, resembling parchment. Its detachment was followed by an ulceration of much less extent, and less painful than in the former instance. These ulcers were perfectly cicatrized in a few days; they produced no hæmorrhage. The vein remained full of clotted blood; this blood was gradually absorbed; no inflammation took place; and subsequently all traces of the existence of the vessels had disappeared. The different veins of the scrotum were successively treated in the same manner.

This success was, however, incomplete. The spermatic veins still remained. The application of the instrument to them was not so easily effected. They were surrounded by a thick skin containing fat, and the vas deferens was in their immediate vicinity. The small size of the nerves and arteries prevented their being drawn aside. The accidents to be apprehended were pain, violent inflammation, formation of a deep eschar, and denudation of the cord. For this new application the instruments were modified, so as to offer a larger surface to the part affected, and to pre-

sent a curve, which should prevent the pressure of the fold of the skin. The vas deferens was excluded. The pain on the application was considerable, but removed by local means. The instruments were kept on seven days; one placed as near as possible to the external ring, the other towards the inferior part of the cord. They determined an inflammatory swelling of the parts comprised between the two pincers, and produced a superficial eschar of the part on which they immediately acted, combined with an adhesion of the two opposed cutaneous surfaces. The consequent ulcerations were cicatrized in less than fifteen days; before which time the cord had lost its knotty feel. There, however, still existed, at the cauda of the epididymis, a mass of vessels extending as far as the place of the last compression. Two other pincers were applied; one immediately before the testis, which was drawn backwards, the other two inches higher up. They were kept on the same number of days as the preceding, and followed by some pain, inflammatory swelling, and eschars of the integuments.

It deserves remark, that the inflammatory symptoms, after this last operation, were more violent than before, and less promptly removed. The instrument placed above the testicle produced a perforation of the skin, and a solution of continuity resembling that produced by a seton. The inflammation and swelling were considerable; an abundant oozing of a sero-purulent matter existed during fifteen days, from the ulcer. These accidents were got under by emollient cataplasms and repose, and at the same time the varicose mass which had existed at the bottom of the scrotum, was converted into a small tumour, in which no trace of vessels was discoverable. The disappearance of the swelling soon permitted an examination of the testicle, which had been long lost amid the vast fasciculi of vessels. Its nutrition was found to be unimpaired, and its volume equal to that of the opposite side. The cure was perfect at the end of November."

The gentleman informs us that M. Breschet has operated in *numerous cases*, both in public and private practice, with perfect success.

We have no hesitation in stating explicitly and boldly, that, in our opinion, this is essentially an objectionable operation; and the following are our reasons for this dogmatic assertion.

In the first place, it is attended with danger. Inflammation is excited in the spermatic and the scrotal veins, and venous inflammation, however occasioned, will at times prove fatal. We believe that Sir E. Home lost a patient in whom he tied a spermatic vein, and M. Delpech, if our memory serves us, lost a patient also, after the application of caustic. Surgeons have almost universally abandoned operations on the saphena vein, because dangerous or fatal phlebitis every now and then ensued. It is idle to protest that compression is not so injurious as division by the knife, or the employment of the ligature. When we read the case of M. Breschet, and when we reflect on what must happen, it is obvious that inflammation, more or less severe, of the spermatic veins, must be produced, and it is that inflammation, not the exciting cause of it, which is hazardous. Our first objection, then, is the danger of the operation.

In the second place, the operation is not likely to succeed. The anastomoses between the spermatic veins are so numerous, and they constitute in themselves such a venous plexus, that it can be of little service obliterating the trunk of one or two, or indeed of any partial number. But if we obliterate all the veins, how is the blood to get back from the testis? Either we must leave veins to carry on the circulation, or we must tie the spermatic arteries also. The operation has been founded on a supposed analogy between varices of the veins of an extremity and varicocele. But that analogy is in some measure a false one; for, in the former case, the venous system of a limb is only partially affected; while in the latter it is almost the entire venous system of the testicle that is concerned. We are confident that the operation, painful and hazardous as it must be, presents little chance of permanent suc-

cess. If only some veins are obliterated, the others will increase, and if all the accessible veins are choked up, fresh varicose veins will gradually form. The blood goes to the testis still, and it is ridiculous to suppose, that the way to favour its return is by opposing fresh difficulties. This is driving out devils by Beelzebub, the prince of them.

In the third place, let us pause and inquire what is this disease, for which a tedious, painful, dangerous, and, after all, a probably inefficient operation is proposed. Why it is so common, that the majority of men suffer in some degree or other from it, and it is so slight, that it very rarely amounts to more than an inconvenience. At the worst, it only occasions wasting of one testis, as it is extremely uncommon for the right to be affected; this cannot be regarded as a very serious calamity. Whether serious, however, or not, it is rather probable that the operation would tend to increase it, if it exerted any good effect at all. Yet, with all these facts staring us in the face—with the knowledge that varicocele is very seldom more than a source of some annoyance, requiring a bag truss and the bidet, we are told that M. Breschet has operated in "*numerous cases*," public and private. What conclusion can we draw, but that M. Breschet has subjected *numerous* individuals to an operation, to pain, distress, and hazard, without any material necessity, and, we will add, without much ultimate material benefit.

Irish Unanimity; or the Blessings of Medical Corporations.

We extract the following passage from a little pamphlet on Medical Reform, by Mr. Andrew Ellis, one of the surgeons to the Charitable Infirmary, Jervis-st. Dublin.

"The selfish and coercive system, which pervades the three medical corporations in Ireland, appears to me to be an intolerable grievance, of which students have much reason to complain. At Trinity College, no certificates, but those granted by University professors, will be recognized; on the other hand, the College of Surgeons, in the true spirit of retaliation, will neither receive the certificates issued by the professors of any University, which will not recognise those given by the lecturers in their school; nor those granted for attendance on the lectures delivered in the school connected with the Apothecaries' Hall; and again, in return, the examiners at the hall will not acknowledge the certificates of the lecturers in the School of the College of Surgeons. Are we still to be told, that the continuance of this system of reciprocal retaliation and coercion is necessary for the advancement of science, and the preservation of the public health?"

"An Irish Apothecary cannot, as the law at present stands, open a shop either in England or Wales, unless he shall have first complied with the regulations, and submitted to another examination, before the London Court of Examiners. In like manner, the English Apothecary is prevented practising his profession in Ireland, until he shall have conformed to the regulations, and submitted to a second examination at the Hall in Dublin. The absurdity of the present state of the law on this subject, becomes still more palpable, when it is recollected, that both the London and Dublin apothecaries may, if they please, go and open shops, and practise, without restraint or annoyance, in Scotland!"

Lithotomy and Lithotrity.

When any discovery is made, there are always plenty of half-witted enthusiastic people, who expect from it a sort of millennium, and who, as they are little better than fools themselves, are liberal in applying the term to those sober folks who exercise the privilege of thinking. But when a little time has elapsed, and actual experience has shewn the futility of extravagant anticipations, when the real merits and demerits of the plan have been made apparent by positive results, then these same people are apt to turn round, and vent the dis-

appointment of their own unreasonable fancies on the measure that occasioned them. As love more easily runs into hate, than into dispassionate judgment, so enthusiasm, based on ignorance, exhibits its equally violent extremes.

We remember well, that when lithotrity was introduced, lithotrity with the objectionable three-branched instrument and drill, numerous correspondents in the Journals were loud in their denunciations of those English surgeons, who did not at once throw away the staff, and gorget, and knife, and assume the drill-bow and the rest of the lithotritic apparatus. Yet it is but the other day that a writer in the Lancet denounced a gentleman, eminent for his surgical attainments, because he had recommended a patient to be operated on by Baron Heurteloup. That patient died, and the writer demanded a list of the victims to the new process. Such inquiries as this, and such advocates or opponents of practical improvements, we may safely consign to their natural obscurity, and proceed to estimate, in a more candid and more rational manner, the advantages or disadvantages of lithotrity.

We have no intention of entering in an elaborate manner on a comparison between lithotrity and lithotomy. Such a comparison can only be accurately drawn from facts—at least they must form a considerable portion of its basis. But, from the very nature of lithotrity, we are kept very much in the dark with respect to it. We hear much of its success, and little of its failures. As it has been hitherto chiefly practised by those who have devoted themselves exclusively to its performance, they have naturally been chary of publishing what might alarm the world. Yet something has transpired—a good deal is known—and there are data for arriving at an approach to truth in our conclusions.

We shall first direct attention to some discussions which have taken place in the French Academy, and to some letters which have been published in Paris by MM. Civiale, Velpeau, and others, and we shall then subjoin a very few remarks of our own. For what occurred in the French Academy, we are indebted to an article in our contemporary, the American Journal of the Medical Sciences, from which we shall draw the succeeding statements.

It appears that, in France, that is in Paris, the advocates of lithotrity and of lithotomy constitute two positive, if not violent factions. Throwing off the calm and philosophic spirit which should characterize the pursuit of scientific truth, they have disputed with all the acrimony of political partisans, and exaggerated, as such brawlers do, not only conclusions, but premises. Four successive sessions of the Royal Academy witnessed their furious discussions, and the report by which they were said to be concluded, but will be really prolonged, was adopted amid "incredible tumult"—protests against the manner of voting—and demands that the question should be put again in the succeeding session.

1. The discussions in the Academy were, in the first instance, occasioned by a memoir of M. Leroi d'Etiolles, on the practicability or utility of lithotrity in children. Our readers are no doubt aware, that it has been generally agreed that the operation is not applicable to very young persons, on account of the small size of the urethra. M. Leroi, however, has presented the history of five cases in which lithotrity was attempted or performed, and applied the results to the solution of the question. The following is the abstract of the memoir contained in our contemporary.

"1st case—a child of four years. *Stone* nearly an inch in diameter. It was very fragile, but required six operations for its removal. *Accidents.* Two fragments, at two different times, became engaged in the urethra, occasioning 'a great deal of suffering.' *Result.* Cure. 2d case—age five years. *Stone* about the same size, destroyed by five operations. *Accidents.* None mentioned. *Result.* Cure. 3d case—age not noted. *Stone* about the size of a filbert, partially engaged in the urethra; seized and broken with forceps with three branches. *Accidents.* On the morning following the first operation,

a fragment passed the prostate gland, became arrested in the urethra, and caused 'violent pain.' Two days afterwards, another fragment was arrested in the same manner and produced the same consequences. It was repulsed with 'infinite difficulty,' nor was it broken with less. *Result.* The child ceased to suffer, but as the patient was unmanageable, the cure could not be rendered certain by sounding. 4th case —age four years. *Stone* very small, and broken twice with great ease, the child being admirably manageable. Four operations are noticed in the report. *Accidents.* At the third operation, a portion of the forceps remained in the bladder, *a fact only known to the operator;* this was removed a few days afterwards by means of another forceps. A fragment of the stone was engaged at the same time in the urethra, and could not be pushed back immediately. *Result.* M. DUPUYTREN took charge of the patient, pushed back the fragment, and performed the bilateral operation. The patient was thus cured. 5th case—age three years. *Stone* three or four lines in diameter. *Accidents.* None. *Result.* Cure after two operations."

M. Leroi, from this evidence, decides in favour of the possibility, but against the utility of lithotripsy in young children, unless we are assured that the stone is small. We would go farther, and decide against the operation in all cases. It is not so much the size of the stone as the nature and the size of the instruments that we must consider. It is the *operation* which is inapplicable to the small urethra of the child. It is more painful, more tedious, more uncertain, and, from the aggregate of all these circumstances, it is probably more dangerous than lithotomy. The very repetition of the manipulations is a fatal objection to the process in children. They bear pain ill, are thrown into a state of nervous excitement, and either grow unmanageable, or perhaps become affected with serious symptoms. It is a great object to get an operation done at once in children. The objections we have urged apply with much less force to lithotomy. In fact we all know that in children this operation is usually successful.

We may venture to pronounce that the question between lithotrity and lithotomy in children is, and has been long decided in favour of the latter.

2. The mémoir of M. Leroi became, as we have already observed, the occasion of a discussion on the general merits of lithotrity. M. Velpeau, it would seem, first mooted this difficult point, and, supported by MM. Sanson, Souberbielle, and Pelletier du Mans, threw down the gauntlet against that operation. It was as warmly defended by MM. Amussat, Legallas, and Lisfranc. We shall not dress their arguments in the form of a debate, but state in as clear and connected a manner as possible their general tenor upon both sides.

The Report of M. Velpeau attributes, and we think with justice, the rapid progress of lithotrity, to the natural horror entertained by the world for cutting instruments.

"That which has given so much importance to lithotrity in the eyes of the world, is the fear of cutting instruments. It is the same fear that has made the fortune of caustics; of the *cura famis;* of compression in the treatment of cancers; of antiphlogistics, leeches, and divers highly praised local applications in lacrymal tumours, &c.

Is it *pain* that they pretend to avoid by lithotrity? *The operation of lithotomy occasions infinitely less!* The same is true with regard to the duration of the operation, the danger of relapse, &c. If then lithotrity is a happy conquest of modern surgery, it must remain nevertheless, a method simply exceptional, when compared with lithotomy, after human reason shall be permitted to define its natural limits. Not only in children, but in adults also, it is attended by greater inconveniences than lithotomy, whenever the stone is very hard or exceeds in size a walnut, *(gros noix)* and when the patient has not too great repugnance to the latter operation."

The two great causes which have led to the exorbitantly high estimation in

which lithotrity is held, are the suppositions, grounded on the reports of the lithotritists, that its performance is attended with little pain, and that it is not a dangerous operation. Each of these points requires careful consideration.

No doubt there are some very favourable cases, in which little pain is occasioned by lithotrity. But in the great majority of instances it is a very painful operation. After a "sitting" or two the urethra and neck of the bladder are rendered sore and irritable; perhaps the mucous membrane of the latter is inflamed. The introduction of the large straight instruments is very painful, the manipulations cause much suffering, and the discharge of the fragments of the calculus is frequently attended with it also. Take a single lithotritic operation, and no doubt it is not so hard to endure as lithotomy. Nay, take a *very* fortunate case, and the whole process is not to be compared in this respect to cutting. But in the greater number of instances, the sittings are repeated, and the aggregate of the pain inflicted, is, we conceive, greater than it is in the majority of cases of lithotomy. We would not be misunderstood. In favourable cases, and with dexterous operators, lithotrity is undoubtedly a less painful operation than lithotomy. But in unfavourable cases (shall we say in most?) it is either more painful, from frequent repetition, than cutting, or, at all events, it is a moot point between them.

But is not lithotrity a very safe operation? There's the rub. Safety or danger, success or misfortune, have now become matters of experience and of demonstration, questions admitting of decision, not merely on hypothetical grounds, but on facts. Yet those facts are hard to be obtained. They are mostly in the lithotritist's keeping, and, aware of the jealousy with which he is regarded, alarmed for the fate of his infant art, can we wonder if he keeps them safely?

It is singular how widely different is the reading of the same page by persons of opposite opinions. M. Civiale has published the particulars of certain cases in which he attempted or performed lithotrity. From *his own summary*, it appears that the number of cases operated on since 1824, have been 244. Of these there were cured 236; the number of deaths was 5; and the patients who continue to suffer, though no longer labouring under stone, are 3. Thus M. Civiale's own estimate shews a mortality of only 1 in 48¼.

This is marvellous success. M. Civiale must have displayed much more than the wisdom of the serpent, in his selection of cases for operation, to have obtained such results as these; or he must have experienced such good fortune as ordinary mortals cannot look for. It is totally unlike what any other lithotritist has met with, and when we reflect that many of the operations were performed with instruments now acknowledged to be dangerous: and that the earlier ones were resorted to at a time when the affections of the kidney were little understood in France, if indeed they are so at the present moment, we confess ourselves unable to offer any rational explanation of such triumphant results.

Let us listen, however, to M. Velpeau, and hear his deductions from M. Civiale's cases. According to this gentleman, of the 244 cases of M. Civiale, there were cured 130, and the number of patients dead *or* retaining the stone is 114!

The discrepancy between the two statements is enormous. It is true that M. Velpeau's statement is loose, but his numbers are precise, and the declaration being made in the very face of M. Civiale, it is incumbent on the latter to disprove it if he can. Being taxed with exaggeration, M. Velpeau replied:—

"At the academy, M. Civiale might have assured himself that if facts have been altered, it has not been by me; and that I am also acquainted with the memoir which he has inserted in the fasciculi of the academy, and it is precisely because he has taken the precaution to publish all his observations, that I have arrived at results in figures so different from his."

Leaving this particular question for

the present we proceed to some other statements made by M. Velpeau.

" M. Velpeau proceeded to state the accredited results, upon which were based his conclusion that the mortality from calculus in the hands of the friends of lithotripsy was greater than followed in the hands of the lithotomists. From this statement it appears that neither M. AMUSSAT, M. LEROI D'ETOILLES, nor HEURTELOUP have ever published complete accounts of their results, and their success or failure in selected cases should weigh but little in a general question. There remain the summaries of MM. CIVIALE and BANCAL, together with certain private information communicated by M. Leroi, but which M. Velpeau did not feel warranted in stating, and some data of more ancient date. The evidence furnished by these is far from favourable in the opinion of M. Velpeau. He stated that of eighty-three cases *operated on* by the most able lithotritists, forty-two were cured, thirty-eight died, and of the forty-two cured, nineteen had serious accidents—a result which he acknowledged was 'very different from that which appears on the face of the tables, (Rapport Larrey).'"

We observed, in continuation, that of 24 cases operated on in the Hospital Necker, 14 are cured, 11 have proved fatal. Of 45 cases since operated on, 30 are cured, 15 have been fatal. In 10 other cases, the stone is retained. Of 30 cases published by Sedaire, in the Gazette des Hôpitaux, 18 are cured, 8 have been fatal, and in 4 the stone remains.

It is obvious that these statements are not to be entirely trusted in a statistical inquiry. They may be picked. But if the lithotritists object to this evidence, as they well may, it is necessary for them to produce the whole truth. We much fear that the acrimony of the present discussion will tend to the very opposite effect, and that the day has not yet arrived when authentic and uncoloured facts can enable us to arrive at unprejudiced conclusions.

Yet, although we think it would be unsafe to generalise on such data as M. Velpeau has brought forward, they will tend to convince the most sanguine advocates of lithotrity, that it cannot be regarded as a trivial operation, nay, that we must pause before we admit it to be a very successful one. The deaths are many, the failures, independent of death, are not few, and the balance is more even between the operations of lithotomy and lithotrity, than many have supposed, or than some will still allow. It is absurd at present to attempt an estimate of the mortality of the latter, but it is right that what is actually known should be widely known, in order to disabuse the profession at large of extravagant and erroneous notions.

We will now revert to the discussion between MM. Civiale and Velpeau, with respect to the 244 cases of the former. We do so because it involves a principle of no little consequence—not for the sake of the personal difference between those gentlemen. We extract the following passage from our contemporary.

" As it regards the question at issue with M. Civiale, it seems that he has selected from the cases reported by the latter surgeon, two hundred and forty-four observations in which the operation of lithotripsy was, *in his opinion*, performed. The character of the commentator is a sufficient guarantee for the fact, that of *these* two hundred and forty-four cases, but one hundred and thirty were *cured*. But there is an important breach in the chain of evidence. We are no where exactly informed what M. Civiale regards as a lithotritic operation, nor are we made certainly acquainted with the circumstances which he considers as a sufficient proof of cure. M. Civiale has defined what *he* considers an operation. 'I have said, in the last fasciculus of the academy, where the exploration terminates, and where the operation begins.'—*Letter to the Academy.*

The last fasciculus has not yet reached us, and we can only infer the opinion of M. Civiale, from the following passage in his letter, and from the remarks of M. Velpeau; but the inference is very plain.

'As to the pretension which has been

advanced in some writings expressly designed to depreciate lithotripsy; to consider as real operations the preliminary examinations that are necessary to determine the condition of the patient, and to ascertain whether the operation can or cannot be performed, if any thing could surprise us, it is that this pretension should again make its appearance in the academy.' *loc. cit.*

It is evident, from these passages, and the conflicting statements of the parties, that the two hundred and forty-four cases of operation, chosen by M. Velpeau, from the returns of M. Civiale, even if the acknowledgment of the former to that effect had been wanting, are not the same two hundred and forty-four cases acknowledged to have undergone the operation by the latter surgeon. We have then two series of observations re-entering and becoming confounded with each other at various points, and the conclusions drawn from one series can be of no value in estimating the accuracy of the other; the very attempt to use them for such a purpose is to a certain extent unfair.

The next question of any interest to the profession, is the value of the tabular result of each of these series considered separately, as elements of statistical calculations. That of M. Civiale's report, hangs on the validity of his definition of a lithotritic operation, and the nature of the manipulations exercised upon those patients whose cases fall without the definition. Let us hear M. Velpeau on this subject.

' As for myself, I have made use of the facts published by M. Civiale, thinking it impossible to draw them from a better source. Nevertheless, seeing that we build on the same foundations, how comes it that we differ so widely in our calculations? M. Civiale positively refuses to admit, that the examinations, the attempts that are made to recognise the existence of the stone, to seize it, or to break it with instruments, should be considered as operations. This is an idea that we find in all his writings. Let us see, now, the nature of these preliminaries. The litholabe, the brise-pierre, or the percussor, are introduced into the bladder, where one extremity is made to move about, in order to ascertain the existence and the situation of the stone. Then the instrument is opened; the branches are separated, to seize or embrace the foreign body, and to ascertain its dimensions and its form. Finally, an attempt is made to perforate, to crush, or to break in pieces the stone, by acting on the other extremity of the lithotritor, which is large and straight, in the urethra. It is repeated one, two, or three times, at intervals of a few days. It may now, perhaps, be demanded of me, in what respect the operation differs from these preliminaries. Truly, I know not! It has always appeared to me that, *once in the bladder*, the instruments expose the patient to as much danger when they manœuvre in the empty space, or fruitlessly, as when they act with real efficacy upon the calculus.'—*Lettre de M. Velpeau.*"

It is impossible, we think, for any practical surgeon to agree with M. Civiale. It is very well to insulate the mere crushing of the stone, from those manipulations which were necessary in order that it may be cruahed, and tell us that *that* alone constitutes the operation. Such special pleading may do for the Sorbonne, perhaps for the Academy, but to the patient, we imagine, it will be any thing but satisfactory. What would be *his* gratification if he were told:—"Lithotrity is not a painful operation; but, of course, I am talking only of the crushing. It is not a dangerous operation, but still we must confine the observation to the crushing. It is true, you will suffer a good deal from the examinations, they may be ineffectual, they may terminate in your destruction, but then you cannot lay the blame to the crushing. They are not required in lithotomy, and they are requisite for lithotrity; yet if you die from *them*, you have the consolation of knowing that it is not, strictly speaking, lithotrity which kills you, and *it* remains as triumphant as ever."

Such arguments may be very good to the patient, they may be perfectly convincing, but they ought to be fairly and openly stated. For our own parts we must own, it is the mortality

that seems to us the important thing, and whether the man dies at this stage or at that, from the litholabe or the percussor, is comparatively immaterial, if he dies at all. And such is the common-sense view of the case which, we fancy, will be generally taken.

Our contemporary, in his remarks upon the question, remarks with which, for the most part, we quite coincide, introduces the results of some lithotritic operations performed in America.

"Of fourteen cases treated by lithotripsy by surgeons of our acquaintance, one died by causes totally foreign to the operation; one was subjected to an attempt which failed, owing to the excessive pain it occasioned, and the patient was afterwards cured by the lateral operation; and twelve were cured."

Eleven other operations, performed by Dr. Randolph, of Philadelphia, were all successful.

The following are the conclusions deduced by our contemporary from the facts and arguments of the speakers in the Academy.

"1st. It is conceded on all hands that when the bladder and urinary passages are in a healthy condition; when there is no contra-indication from visceral or other disease; when there exists but one stone, and this is not very hard or rugose; when the calculus is not larger than a walnut, the patient being an adult, and when the operator has great mechanical skill combined with professional tact, and a thorough acquaintance with the operation, in preference to lithotomy, lithotripsy—*ought to be attempted.*

2d. If there be a plurality of calculi, within certain limits, the other circumstance remaining the same, lithotripsy is equally proper. This is a corollary of the last proposition.

3d. That in all cases, where the urinary organs are healthy, or nearly so, and when the simple methods of sounding employed before all operations in calculus fail in detecting an unusual hardness or size of the stone, it is warrantable to employ lithotritic instruments in the endeavour to ascertain its character.

4th. That examination by lithotritic instruments may render a patient insensible, (Roux,) or may involve his life, (Velpeau;) hence the comparison of equality made by M. Rouchoux, between this species of examination and simple catheterism, is unjust in the highest degree.

5th. That the slightest operations in surgery, such as staphyloraphy, or suture of the perineum after rupture in delivery, *may* produce fatal consequences; hence simple sounding is not *altogether* devoid of danger. *(Roux.)*

6. That the operation of lithotripsy is sometimes attended with so little pain, as to be likened, by a patient who had been frequently subjected to it, to the extraction of a tooth. *(Amussat.)*

7th. That it may be regarded as questionable, whether the average amount of pain suffered in operations for lithotripsy, employed on the recent extensive scale, is in any degree less than that of lithotomy.

8th. That it is *at least* questionable, whether the serious accidents following lithotripsy are not more numerous than those following lithotomy.

9th. That it is not possible to determine with absolute certainty the completion of the cure in lithotripsy, but the proof of the removal of the last fragment may amount exceedingly nearly to certainty. *(Lisfranc.)*

10th. That the dangers of the operation may be much diminished by previous general treatment in some cases, and the pain may be sometimes lightened by previous catheterism, but this is not always the case, for the tenth session may be more painful than the first. *(Ib.)*

12th. That it is impossible to determine by any statistical accounts now on record, the relative importance or success of the two methods, or to determine the same question by the first method proposed in the report.

13th. That the objection advanced by M. Amussat against the second method of ascertaining this point; namely, the cruelty and inhumanity of the test, is a petitio principii, and devoid of weight.*

* The methods alluded to are these:—First, by comparing the mortality of

14th. That a comparison of success between an equal number of grave cases of calculus treated by the two methods, would be an injustice to the claims of lithotripsy; that a group of mild cases similarly employed would produce results unjust to lithotomy, and if a group of cases of a middle character were chosen, which would be accomplished with difficulty, the result would be an approximation to truth, dependent for its value upon the multitude and minuteness of observations *faithfully reported.*"

Enough, we think, has been advanced, to show that anything like an accurate comparison, between the success of lithotomy and lithotrity, is at present unattainable. The data on which such a comparison must be formed are not in our possession.

We will go, however, farther than this, and express our conviction that no such comparison can ever be drawn, because the observations are not really applicable to the same cases. For—

1. Lithotrity is not adapted for children, in whom stone in the bladder is frequent.

2. It is not adapted for the oxalate of lime or any very hard calculus.

3. It is not adapted for very large calculi.

4. It is not adapted for cases of calculus of any size in which the bladder is diseased, or in which the urethra has undergone any material contraction.

When we sum up these cases forbidding, or, at the best, exceedingly unfavourable to the operation of lithotrity, we shall probably find that they form a large proportion, if not the majority, of those which occur in hospitals. The lower class of persons, whose sensibilities are not usually acute, and who have to gain their livelihood by labour, seldom apply for medical advice until the complaint has existed for some time, and the calculus has either attained large dimensions, or the bladder or kidney is more or less diseased. We leave then the majority of cases for lithotomy, and we leave the *worst*. So far is lithotrity from being free from danger, that it abandons the bad cases to the knife. This is a truth that should be generally known. The direct advantages accruing from lithotrity have been greatly overrated, are, perhaps, overrated now, while, singularly enough, the indirect advantages are not sufficiently understood or prized.

Lithotrity has already done much for humanity, because in the first place it has led persons, with stone in the bladder, to apply earlier for medical advice, from the belief that the operation is not a severe one; in the second place, it has enabled us, by its improved modes of sounding, to detect small stones more readily than formerly; and, in the third place, it has given us the means of removing those stones, *while small*, with comparative facility and safety.

If lithotrity is inapplicable to large stones, it finds them out before they are large, and it removes them before they become so. This is the real value of the operation, the positive benefit it confers upon man. And no mean benefit. Who that had a small calculus in his bladder would be cut for it? What professional man would dream of suffering lithotomy in his own case? None, we are sure, aware of all the facts, and of the actual state of the question.

In the middle and the upper classes, where symptoms soon attract attention, and means admit of the patient procuring good medical advice, small calculi are constantly discovered, and are now commonly removed by surgeons in this Metropolis. The bladder-forceps are introduced, after the bladder is injected with warm water, and the same instrument may sound the patient, detect the calculus, and either remove it whole, if it is small enough to be withdrawn through the urethra, or crush it by the screw or the hammer if it is

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calculus before and since the introduction of lithotripsy. "The work of M. Blandin, who alone has had the temerity to do so, proves already that in this point of view, experience pleads incontestably in favour of lithotomy." Secondly, by comparing the results of two equal groups of selected cases, in circumstances as nearly similar as possible, but treated on the two contending systems.

not.* How trivial, how simple, how safe is the operation, when weighed against lithotomy. When once the public grow well aware of the advantage of attending to the symptoms of stone, and to the benefit resulting from early medical attendance, we may anticipate that the operation of lithotomy, as well as lithotrity, under unfavourable circumstances, will be in a great measure superseded. This article has run to so great a length, that we must drop the subject for the present. We shall return to it at a future opportunity, and present some cases in illustration of the remarks that we have offered.

CASE OF DROPSY, WITH OVARIAN TUMORS, IN WHICH THE OPERATION OF TAPPING WAS PERFORMED FIFTY TIMES, BY WILLIAM COULSON, WITH AN ANALYSIS OF THE FLUID by Dr. BOSTOCK, V.P.R.S.

Sarah Price, æt. 38, servant, single, applied to me in April, 1833, for an enlargement of the abdomen;—says, that two or three years ago, after an attack of diarrhœa, attended with pain in the stomach, a swelling took place on the lower part of the left side. The enlargement slowly increased, and for some time was not attended with any inconvenience to herself in her occupation. Several medical men were consulted, and there was a contrariety of opinion, some thinking the enlargement caused by an ovarian tumor, others by a collection of fluid. Her pains at last became severe, and the weight and sense of suffocation so distressing, that it was determined to introduce a trocar to see if there was fluid, and on the 10th of April, 1833, this operation was performed in the most prominent part of the swelling, midway between the umbilicus and crista ilii on the right side, but no fluid escaped. The swelling continued to increase, and the sense of weight and difficulty of breathing became more distressing. There was a distinct sense of fluctuation, and, on a consultation, it was determined on the 28th of May, 1833, again to introduce a trocar. This was done a little lower than on the former occasion, and more towards the left side, when 35lbs. of fluid were drawn off. From this period to the time of her death, the fluid constantly accumulated, and when the symptoms produced by the accumulation were so severe as to prevent her attending to her occupation, the operation was repeated;—after the water was drawn off a tumor could be very distinctly felt, of the size of a child's head. With the exception of the first two or three operations, she suffered very little after the tapping. She would get up the second day, and walk the distance of a mile to her place,

The time between each operation varied, but on the whole it gradually decreased. During the last ten weeks her strength began to fail—she was scarcely able to walk, became thin, suffered severe pain—her bowels, though relaxed at first, were afterwards confined, and on the 20th August she expired.

The body was examined within a few hours after death in the presence of Dr. Thompson and Mr. Langstaff.—The right side was almost entirely filled by the enlarged ovary which adhered to the liver, the peritoneal covering of which was very much thickened: the ovary, on being cut into, presented numerous cells or cysts, of different size, some filled with a clear fluid, others with a substance like putty. The walls of the cysts were not only very thick but vascular, and the outer tunic of the ovary was also very dense and vascular. In one of the cysts there was an opening which communicated with the left side of the abdomen. The greater part of the left side was formed

* Weiss's bladder-forceps are those generally used. It is always better to employ one provided with a screw, because we cannot always be quite sure beforehand of the dimensions of the calculus; and if, seized by forceps unprovided with the means of crushing it, the size should not admit of its withdrawal through the urethra, it might not be easy to disengage it from between the branches of the instrument.

into a cavity in which the water collected, and was lined by a dense and vascular membrane. The peritoneum generally was inflamed and thick—the right ovary and uterus were sound; no morbid appearances were observed in any other part.

The total quantity of water drawn off by 50 operations was 1542 pounds.

Dr. Bostock's Analysis of the Fluid.

"I received from Mr. Coulson two specimens of a fluid taken from an abdominal tumor, one of them at the commencement, the other at the end of the operation. The former was perfectly transparent, the other contained a few floating films, and was slightly tinged with blood, but upon standing for 48 hours, the extraneous matter subsided, so that I could not perceive the least difference between the two. The fluid was transparent and perfectly homogeneous; it had a slight yellow tinge; it was readily mixable with water, and had a sp. gr. of 10058. A portion of it was evaporated at a temperature not exceeding 250°; a colourless transparent film was obtained, with a little brown matter on the margin, and with a number of imperfect cubical crystals dispersed through it—it constituted 2.2 per cent. of the entire fluid. A portion of the fluid was exposed for some time to the temperature of boiling water, and was rendered slightly opaque. The appropriate tests for albumen indicated the presence of this substance, but only in minute quantity. The residuum was found to consist partly of saline and partly of animal matter, in very nearly equal quantity. Nearly the whole of the saline matter was muriate of soda; —by the action of nitrate of silver it was found to constitute as nearly as possible 1 per cent. of the entire fluid. There was a slight excess of soda, just sufficient to affect a test paper, and an indication of phosphoric acid, but they were in too minute quantity to enable me to ascertain their proportion.

With respect to the animal matter, which constituted rather more than half of the residuum, or about 1.2 per cent. of the entire fluid, I have stated above, that it contained albumen, so as to be recognized by the appropriate tests, but in small quantity only. I likewise obtained from it what I have termed albumino-cerous matter—a substance which I am disposed to believe will be generally found to exist in fluids that have been, for any length of time, retained in close cavities. The greatest part of it, at least ⅔ of its whole weight seemed to be composed of the uncoagulable or muco-extractive matter, which constitute the principal part of the animal ingredient of the serosity of the blood—a substance which, in its chemical properties, I believe is nearly related to urine.

The following may be regarded as approximating to the constitution of the fluid under consideration:—

Water	978
Muriate of soda	10
Muco-extractive	9
Albumino-cerous ..	1
Residua of albumen, soda, phosphoric-acid, &c.	2
	1000''

ON MERCURY IN ONYCHIA MALIGNA. By Dr. BECK, of New York.

Mr. Wardrop published a very accurate description of onychia maligna in the Medico-Chirurgical Transactions many years ago, and he there remarks that, in the treatment of this complaint, the only local means which he found to afford relief, were the evulsion of the nail, and the subsequent application of escharotics to the ulcerated surface.—Even this treatment does not always succeed, and amputation is often necessary. He then tried mercury, and, as soon as the system came under its influence, the ulceration assumed a healthy appearance, and the bulbous enlargement began to subside. Dr. Beck has been able to confirm Mr. Wardrop's observations, and has published some cases with that view.

The following description is short, and may be introduced here. Mr. Wardrop loquitur.

"The commencement of the disease is marked by a degree of swelling of a deep red colour of the soft parts at the root of the nail. An oozing of a thin ichor afterwards takes place at the cleft formed between the root of the nail and soft parts, and at last the soft parts begin to ulcerate. The ulcer appears on the circular edge of the soft parts at the root of the nail; it is accompanied with a good deal of swelling, and the skin, particularly that adjacent to the ulcer, has a deep purple colour; the appearance of the ulcer is very unhealthy, the edges being thin and acute, and its surface covered with a dull yellow or brown-coloured lymph, and attended with an ichorous and very fetid discharge. The growth of the nail is interrupted; it loses its natural colour, and at some places appears to have little connexion with the soft parts. In this state," he adds, "I have seen the disease continue for several years, so that the toe or finger became a deformed bulbous mass. The pain is sometimes very acute, but the disease is more commonly indolent, and accompanied with little uneasiness: this disease affects both the toes and the fingers. I have only observed it on the great toe, and more frequently on the thumb, than any of the fingers. It occurs, too, chiefly in young people, but I have often seen adults affected with it."

Of the cases occurring in Dr. Beck's practice, four were ten years of age or under—one of the age of 23. In one case the disease affected the thumb—in a second the great toe—in the others the fingers. They seldom complained of much pain. We shall make room for one case in illustration.

"Decatur Frazer, a boy ten years of age, in July, 1821, ran a small splinter, by accident, under the nail of the right thumb; in a few days the parts about the root of the nail assumed a livid colour, and at the same time began to swell, and afterwards to ulcerate. From this time the swelling gradually increased, and the discharge became more copious and offensive. In this state it continued until about the beginning of January, 1822, a great variety of local applications having been made in the mean time, without the slightest advantage. At this time the little patient was placed under the care of my friend, the late Dr. James Kent Platt, Professor of the Institutes of Surgery in the University of Vermont. The extremity of the thumb had assumed a bulbous appearance, and was about double the natural size. The nail had separated in the middle and was quite loose. The matter discharged from the ulcer was thin and extremely offensive; so much so as to require frequent dressings during the day. There was no pain complained of, except a slight sensation of it whenever the ulcer was cleansed and dressed. Judging it to be a case in which mercury might prove serviceable, the blue-pill was commenced with. Several of these were taken, but from the negligence of the parent of the boy, without any regularity. No effect was produced upon the gums, and no improvement visible in the appearance of the thumb. Dr. Platt being obliged to visit the West Indies for the benefit of his health, I was requested to attend the patient. I continued him under the use of the blue-pill for a few days, but without any apparent advantage. The mother now became impatient, and declined giving any more mercury for the present. After an interval of five or six weeks I resumed the use of mercury in the form of pills composed of calomel and opium in the proportion of one grain of the former to one-eighth of a grain of the latter, three times a day. In about ten days the mouth became affected, and a pretty free salivation ensued. Almost instantaneously upon this effect being produced, the ulcer put on a different appearance. In a few days the discharge from it ceased completely, and in about three weeks the whole had healed, and the swelling almost entirely subsided. Between two and three months after this a new nail had grown out, and the thumb has remained healthy and sound to the present day."*

* Researches on Medicine. By Dr. Beck.

LITHOTOMY A DEUX TEMPS, ON A CHILD.*

The following case is related in the India Journal, which, we are happy to observe is taking root, and thriving amidst our Indian brethren. It is likely to be of service to the profession in that quarter, for it stimulates the indifferent to exertion, and affords opportunities to the zealous for distinction. It is conducted by Mr. Corbyn with professional ability and with gentlemanly feeling, both, after all, indispensable requisites for the permanent success of any periodical, addressed to a liberal and enlightened class of readers.

Case. A delicate and irritable Moosulmann child, ætatis 7, had suffered from the stone for two years, and was greatly reduced in consequence. The boy was taken in quite a desperate state to Mr. Brett, at Cawnpoor, in November, 1834. At the earnest solicitation of the father, and as a last resort, lithotomy was performed by Mr. B.

"The straight staff and scalpel were the only instruments employed, and there was no difficulty until the introduction of the forceps. The lower end of the stone was repeatedly seized, and as often escaped from the grasp of the forceps, being evidently retained either by the firm contraction of the bladder, or by a portion of it being encysted. Finding my efforts unavailing and the child becoming much exhausted, the pulse rapid and small, and profuse perspiration, I desisted from further efforts, administered a full dose of tincture of opium, combined with aromatic spirit of ammonia, and sent him to bed,—constant fomentations being applied. The above measures had the most happy effect. The child rallied, the anodyne and soothing treatment was persevered in, and the ensuing morning the stone was removed in the following manner. An assistant seated on a chair placed the patient on his lap with his back towards him, bent and raised the knees by introducing his arms under the hams, the perineum being lowered as much as possible, the body kept in the erect position, so that the stone might gravitate as much as possible towards the lower part of the wound. Introducing my finger, I felt the calculus which was immediately seized by the forceps and withdrawn. One extremity of the calculus had been lodged in a *cul-de-sac* of the bladder, as was evident by the form of the stone being of smaller diameter than the rest, and having a clearly defined neck, where it had been compressed apparently by the separated fibres of the muscular coat of the bladder, which with the spasmodic action of the bladder in so irritable a subject, satisfactorily accounts for the impediment. I have not the slightest doubt that had I persisted in my efforts to remove the stone, the child would have expired on the table, and the expediency of procrastination on the occasion is thus exemplified. Difficulties in Lithotomy do sometimes occur when least anticipated, requiring all our self-possession and deliberate reflection, and these occasional difficulties, I dare say, gave occasion to the exclamation of Abernethy. 'Oh! egad, 'tis an horrible operation. You don't know what you may be doing.'"

No doubt, Mr. Brett was perfectly right in adopting the practice that he did in this instance. Perhaps the stone is too frequently removed at the time of the operation, from a feeling of natural yet false shame in the operator. It must be owned, however, that the occasions which really require the stone to be left are rare, more rare than the cases in which that proceeding has been had recourse to. A surgeon may pass a life-time and not meet with an instance of the sort.

* India Journ. March 1, 1836.

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On Deformities of the Chest. By Mr. Coulson.

This little brochure is not on the hacknied subject of spinal distortion, but on "lateral and anterior compression" of the thorax. In the former, the sternum is prominent, and the sides of the chest are flattened in. The individual is said to be chicken-breasted. It is now more than ten years since Dupuytren published a paper in the "*Repertoire d'Anatomie*" on this distortion which, though sometimes congenital, is generally traceable to weakness of constitution, scrofula, low, damp and unhealthy habitations, bad cloathing and unwholesome food. This state must, of course, be unfavourable to the functions of circulation, respiration, &c. and it would be very desirable to counteract the deformity if possible. Dupuytren draws a distressing picture of the consequences of laterally flattened chest in hooping-cough—especially when enlarged tonsils accompany the deformity, as it usually does.

The other species of distortion is a flattening in of the sternum, or anterior depression. The external appearances are here the reverse of what they are in the other species. The sternum is hollow, and the sides are bulged out.

"The constitutional remedies for both deformities are the same. We must order nutritious diet; regulate the digestive function; and perhaps employ, as Dr. Copland recommends, the artificial salt-water bath, with a very large proportion of salt, at a temperature suited to the peculiarities of the case (or preferably sea-bathing),—in short, we must make use of all those means by which the system can be duly kept up.

I concur, however, with Dupuytren, in thinking that a strengthening regimen, and the use of tonics should be used with all the moderation required by the embarrassment of respiration and the disorder of the circulation, which might be increased, and even rendered dangerous, by a regimen and remedies of too tonic a nature, or given in too great a quantity.

Whatever mode of treatment be adopted, there can be no doubt that a pure air is requisite to its success. My trust, however, is in other than constitutional remedies."

The remedy of Dupuytren is as follows:—

"Of all those which I have used," says Dupuytren, "I have found none more efficacious than exercises adapted to strengthen the muscles which extend from the arms and shoulders to the chest, and especially than frequent pressure upon the sternum from before backwards."

Mr. Coulson has used this remedy in lateral depression, or chicken-breast, with success; but he prefers voluntary exercise to passive pressure.

"'The object and result of the exercises I recommend,' says Dupuytren, 'is to raise up the sides of the chest, to separate them, to make them turn outward, and finally to restore them to their natural conformation. There is no exercise better adapted for this purpose than that which obliges persons labouring under this malformation, to raise a weight suspended to a cord passed through two pulleys, by the aid of their arms and hands, during several hours daily. The end of the cord to be grasped should be fastened to the middle of a lever to be taken hold of by the two hands, the other extremity supporting a weight proportioned to the strength of the individual. The individual standing upright, or even rising on tiptoe, to reach the lever placed at the extremity of the cord, seizes it with both his hands; and employing the power of the muscles of the fore-arm, arm, neck and chest, to bend the head, chest and body downwards at the same time, must raise the weight at the other extremity of the cord, and alternately employ the flexor muscles to raise the weight, and the extensors to straighten the body. If it be true—and there is no doubt of it—that there exist between the bones and muscles relations of con-

formation and action, so that the latter always tend to act upon the former, in such a manner as to bring them to their first and fixed shape; it is certain that the exercise we have just described, will, by directing the efforts of the muscles upon the bones of the chest, gradually bring the sides of this cavity to an improved form.'

Perhaps the best mode of overcoming the depression by developing muscular action and power, similarly observes Dr. Copland, 'is to cause the child to raise weights, by means of ropes and pullies placed a considerable height over his head; so that, by taking hold of the rope with both hands raised above the head, and pulling it downwards, the muscles may be brought into action, and the parietes of the chest thereby dilated.'

Participating in these views, I observed in my former paper, that 'the child should stand erect, and *carry the arms as far backwards as it can*;' and, to the latter injunction, I still attach much importance. With a vague impression, however, that the exercise prescribed by Dupuytren was not the best devised, since in it the weight of the body and the contraction of the abdominal muscles must depress the ribs, I observed, that 'the use of the dumb-bells is a good exercise,' and added, that 'any exercise, indeed, is good, by which the scapulæ are approximated towards each other, and the arms carried backwards.'

I am now satisfied that carrying the arms backward and approximating the scapulæ, without at the same time depressing the ribs by the weight of the body and the action of the abdominal muscles, is all that is requisite. I object, however, to the employment of dumb-bells for that purpose, on account of the jerk which they produce, the involuntary action (that is, beyond a certain extent) which that implies, and even the danger which it produces; and I deem the Indian Exercises, first described in this country by Donald Walker, in his 'Exercises for Ladies,' as greatly preferable to all others, both in these and in every other deformity of the chest. They raise up the ribs and sternum, without the slightest counteracting tendency to depress them, and they give the fullest expansion to the chest.

By these various means, if properly persevered in, the chest returns to its natural shape, and the whole system becomes invigorated."

Some appropriate cases and plates illustrate this little volume, which we recommend to our surgical brethren. Mr. Coulson seems to have devoted much attention to the subject, and has handled it well.

AN ENQUIRY INTO THE PATHOLOGY, CAUSES, AND TREATMENT OF PUERPERAL FEVER. By G. MOORE, Esq.

This Essay gained the Fothergillian Medal, annually offered by the London Medical Society; and it is a curious circumstance that it is, almost wholely and solely, an Analytical Review of the principal authors who have written on the subject of puerperal fever in this and other countries. The essay is truly eclectic, and would have made a capital article in the Cyclopædia of Practical Medicine. There is, as the author candidly acknowledges, very little originality in the work, "except that of arrangement and combination." The work is, however, much more valuable, and will prove much more useful, than any original essay could have proved. The compilation is very judicious, and the labour expended in searching out materials from musty, often-forgotten tomes, and sifting the grain from the chaff, must have been very considerable. An Analytical Review itself, the volume is totally insusceptible of analysis. We think it ought to be in the hands of most practitioners, as an excellent resumé of all that has been said and done respecting a most formidable disease. We shall select a specimen of the composition of this volume—nearly at random.

"Morbid anatomy discloses but little concerning puerperal fever, by which the physician can be guided in the employment of therapeutic measures. The varieties which it presents, as far as

regards all practical purposes, are much better ascertained by symptomatology, than by dissection. In fact it would be almost impossible to determine what particular affection of tissue is associated with particular symptoms, since every variety of structural alteration may exist together in the same case. Yet, necrotomy is of great value, as auxiliary to the consideration of this disease, as it sufficiently accounts for the failure of remedy, and proves that unless the destructive activity of morbid processes be speedily arrested, the lesions of structure produced are often such, as neither the restorative powers of nature can repair, nor those of medicine reach.

The disease has been divided into varieties almost as numerous as its successive symptoms would allow, but we have good authority to conclude that all the varieties may be safely reduced to three—these are, inflammatory, synochoid, and adynamic.

If all the circumstances already enumerated, be viewed in their proper relation to each other, it will appear, that whether the disease shall be deemed inflammatory, synochoid, or adynamic, will depend not so much on the nature of the structure most implicated, as on the constitutional state of the patient at the period of attack. The synochoid and adynamic varieties, although of course more speedily and more extensively evincing alteration in the condition of the blood, and also in the fluids secreted from it, than in the stage of simple inflammation, are nevertheless as intimately associated with structural disorder, as that which is called inflammatory. Metritis, peritonitis, and uterine phlebitis, are certainly as often connected with one form of fever as the other, but undoubtedly the rapidity with which sanguineous deterioration and consequent adynamia take place, will greatly depend on the nature, extent, and importance of the structure primarily involved. Hence it would appear that it may best be treated, at its commencement at least, as simple synochial fever, with the understanding that if it be not arrested in its first stage, the condition of the body is such, that some organic change must inevitably follow, which no art can control. Even if we were obliged to conclude, which we are not, that it invariably has its source in specific contagion, yet the malady must be encountered according to the mode of its manifestation, and not simply according to the notion we may entertain concerning its exciting cause, although of course that notion will somewhat influence our procedure, but merely in as far as to remove a consequence first requires the removal of the cause. The disease, however, is the same, by whatever cause produced, and the withdrawal of the cause is not sufficient to effect a cure, for the continued action of the originating impulse, is not by any means necessary to effect the establishment and development of disorder, since the system having acquired a morbid momentum is disposed to proceed morbidly, according to its own laws, and not according to any specific influence derived from the determining impulse. Our remedies must act on the medium through which the morbid influence itself acts, that is, the nervous system considered as a whole.

The practical varieties are therefore to be viewed as merely presenting different manifestations of the patient's condition of system at the period of attack. They are marked by certain symptoms which, from their prominence, claim the chief attention, and must, of course, be met according to their several indications; but, both symptoms and morbid appearances, evince the direct tendency of the disorder, to the rapid establishment of violent and extensive inflammation, particularly in the uterus, its veins and appendages, and in the peritoneum, or in any part which may then be subjected to violence.

Here the advantage of correct theory, concerning inflammation, would be experienced. But as the theory of its cause involves a problem not yet resolved, we must be guided by general experience in its treatment. The principal object is to resist the incursion of this inflammation by the most vigorous measures at its very commencement. This is best accomplished by abstraction of blood, either by venesection, by cupping, or by leeches. Venesection is most frequently adopted."

ON THE ANTIDOTAL TREATMENT OF THE EPIDEMIC CHOLERA. By JOHN PARKIN, late of the Honourable East India Company's Service, &c.

The cholera storm has blown over here, and people are putting their heads out of doors, and wondering that so small a matter could have made so great a noise. The Cholera Boards have dissolved like

"Snaw i' the hot sun, my dear,"

and the worthy gentlemen who recommended us to put a cross upon our doors, drink our soup through the window in buckets, and place our parishes under the college-militant, look foolish and uneasy when the subject is mentioned, and would willingly forget that they took such especial pains to be ridiculous. The Lancet and Gazette congratulate themselves no more on belonging to the same party, the former no longer promising a lordship to sucking contagionists, and the latter ceasing to call down Heaven's vengeance and the mob's on all who opposed quarantine restrictions.* Peace to the manes of the ultra-contagionists, for they are fairly under ground.

Who does not recollect the cloud of pamphlets that obscured the sky, when the cholera was in existence. Reports, propositions, cures, crowded our table till it groaned. Who does not remember too the sudden disappearance of octavo, duodecimo, and octo-decimo, with the occasion. So soon as the disease died, the mortality amongst the pamphlets was quite frightful. The authors sank into a sudden collapse, and when the publisher's bills were at last presented, the blueness of the features was most striking.

Once or twice since that period our slumbers have been broken, by a new cholera pamphlet. Like a shadow it has come, and so departed, none seeming to heed either book or book-maker. Mr. Parkin has just sent forth a slim octavo, the sight of which occasioned these recollections.

Now don't, reader, be alarmed. We have no more intention of reviewing this same octavo, than of giving an account of Halley's comet. Pray then be easy and hear what we have to say.

Mr. Parkin is satisfied that carbon or carbonic acid is an antidote for the poison of cholera. He has told the world so several times already, but, as it wouldn't believe him, he has written a book. If that fails to convince, he must adopt the expedient of my Uncle Toby, and tell this generation to "go and be ———."

He says it is unimportant what his theory may be; and we agree with him. Like Mr. Parkin, we are practical folks, and if the thing is a specific, we care not under what hypothesis it was brought forth. Carbonic acid *is* an antidote. Mr. Parkin, who has tried it more than any body else, and, of course, knows more about it, has no hesitation in saying so. That is enough.

"When carbonic acid has been given in any case in which the stomach is alone affected, the effect of the medicine, according to my experience, has been to relieve the symptoms almost immediately. The nausea is speedily dissipated, the giddiness and faintness disappear, and the sensation of burning and heat at the pit of the stomach is no longer felt, or complained of, after two or three doses of the medicine.

But the most remarkable circumstance is that which has attended the employment of the same agent during the stage of diarrhœa; of that relaxation of the bowels which is, almost always, the precursor of the severe form of cholera. Of the numerous cases in which I have given the carbonic acid, at this period, it has invariably arrested, with some few exceptions to be explained hereafter, the morbid process; at a longer period, it is true, but still at a regular and certain interval.

Neither is the remedy less useful in

* These are facts. The Lancet gravely promised that Parliament would grant a *title* to the discoverer of a specific for cholera. The Gazette's thunder against the anti-alarmists was peculiarly rumbling, and would have turned the best beer in Dennis Brulgruddery's cellar.

what has been termed the evacuant, or second stage of the disease, characterized by rice-water evacuations. In these cases, the irritability of the stomach is speedily relieved, and the vomiting ceases soon after the first, or at most the second, dose of the medicine —while the relaxation of the bowels is also arrested, if not with the same, with almost as great celerity as in the former instance.

But it is in the commencement of collapse that the efficacy of the remedy is best observed, and its *modus operandi* the most apparent. Not only is the vomiting immediately arrested, as in the previous stage; but the thirst, heat, and burning sensation at the pit of the stomach, disappear almost as speedily. During a repetition of the medicine, the spasms which generally prevail at this period are effectually relieved; the evacuations from the bowels become less abundant and less frequent; the depression of the system is removed; and the other symptoms characteristic of this stage vanish by degrees—so as frequently to leave the patient comparatively free from all ailment after the administration of only five or six doses of the medicine."

If carbonic acid relieves diarrhœa, rice-water evacuations, and collapse, we do not see how it can be considered to be any thing but an antidote. It is the very remedy that is required. But how are we to give it.

"Thirty grains of the powdered carbonate or bicarbonate (not the subcarbonate) of soda, or potash, should be placed in a large tumbler, to which is to be added a dessert spoonful of any simple syrup, mixing the two ingredients together so as to form a homogeneous mass. Then take twenty grains of citric or tartaric acid, and dissolve it in a wine-glass full of water, when the solution is to be poured on the contents of the tumbler, and the mixture drank off immediately, before the effervescence has subsided. If more convenient, or when to be obtained, lemon-juice may be substituted for the citric or tartaric acid, in the proportion of two table spoonsful of lemon-juice to the same quantity of soda or potash. As the object, in giving the syrup, is to render the mixture more tenacious, and prevent the gas escaping so rapidly as would otherwise be the case, it is not necessary to use any, or at least, so great a quantity in the latter as in the former instance."

Thus effervescing draughts are a medium of conveying carbonic acid, and effervescing draughts, have we know been always given, more or less. To be sure other people have given them under precisely an opposite notion, but that is immaterial. They gave a good remedy with a wrong view; but still they gave it. Even the immortal Stevens gave saline draughts at Cold-bath Fields. How successful his practice was, poor Sir David Barry's report has told. It not only cured cholera, but prevented it, and in a few hours after the intelligent Doctor had reported the frightful state of the prison, Sir David found hardly an instance of cholera in it.

We do not think it necessary to give Mr. Parkin's directions for the administration of the carbonic acid in full. Those who feel anxiety upon the subject may refer to his book for information. He is fully convinced that carbonic acid *is* an antidote to cholera, and if the profession is incredulous, he may safely wash his hands of the matter, and reflect with satisfaction that he has done his best to persuade it.

THE PRACTICAL ANATOMY AND ELEMENTARY PHYSIOLOGY OF THE NERVOUS SYSTEM; DESIGNED FOR THE USE OF STUDENTS IN THE DISSECTING-ROOM. By F. LE GROS CLARK, Demonstrator of Anatomy in St. Thomas's Hospital. 12mo, pp. 367. Longman's London, 1836.

The alteration which has taken place in the turn and temper of men's minds is so obvious, that we need not dwell on it. The taste for abstract speculation and for theoretical reasoning has sensibly declined, and facts and strict inductions from them are universally demanded.

It is not surprising if anatomy has felt the influence of so great and so im-

portant a change—on the contrary, it is strange that it did not receive a more decided impression long ago. The fact is, that rigorous observation and description prevailed on the Continent, and especially in France, before they were extensively practised here. The reason must be sought in the difficulties that, till lately, obstructed dissection in this country, and the consequent disposition to generalize, that was occasioned by the want of opportunities for frequent and minute investigations.

It was natural, under such circumstances, to try to make the most of what could be readily obtained, and to hug the belief, that the broad facts of anatomy were all that were important. The doctrine was popular and the practice general, and the convenient excuse which they offered, both to the teacher and the pupil, contributed, we may be sure, to promote their diffusion. The former said that minute anatomy was useless—the latter found it was a bore—the indolence of both promoted a notion, which first originated in the pocket—and gradually it came to be a matter of faith, which was not so much as challenged.

Manuals of all sorts were of course in vogue, and every fresh author proposed his vade-mecum, as a still straighter and shorter cut to knowledge than its predecessors. These manuals tended to discourage accurate investigations. How could they do else? Their very existence depended on the taste for superficial study. The author always affected to direct attention to *practical* points—to things which would be of use. "Do not (said he to the willing student) trouble yourself with minutiæ, which can never be of service to you, learn the main facts, your knowledge of which can be applied to the cases that will daily come before you." The student listened, arrectis auribus, to the flattering tale, and, as he was told to attend to the main facts, he took good care that he would go no farther (he seldom went so far) than his preceptor wished. That was the golden age of hand-books; but an iron one was coming.

While teacher and taught were dozing over superficial anatomy in Britain, the French and German professors were diligently pursuing their elaborate researches. The spirit of John Hunter had departed from his own land, and animated Söemmering and Meckel, and Tiedemann, Beclard, the Cloquets, Breschet, and many whom we do not mention, because their names are in men's mouths. Anatomical science sank in this country in proportion as it rose abroad, and at last we became aware of the pass to which our pseudo-utilitarians were leading us.

We are, after all, an intellectual people, and the truth is seldom presented to us in vain.

We appreciate and seize it, and our national resolution and energy of purpose, guided by that common sense which is our peculiar characteristic, generally enable us to carry out our purpose to a successful issue. Dr. Knox's translation of M. Cloquet's System of Descriptive Anatomy appeared. It boldly proclaimed the necessity for extreme minuteness—the fallacy of saying that this fact was important and that was not—the danger of breeding such a laxity of mind in youth. The appeal was to the reason, and its triumph was equally signal and sudden. The teaching of anatomy was revolutionized in most of the schools—the cloud of manuals was dispersed—teachers who, on the old system, had been the most popular, were deserted—the teachers of the new became popular—and, to the astonishment of all who had been educated in the belief that minute anatomy was intolerable, it not only became bearable, but, by the students themselves, was most liked; such is the fact. Take the majority of medical students, and they *like* minute anatomy. There is something in it satisfactory to that spirit of curiosity which was implanted in our minds, for the purpose of enabling us to do what we have done in science and in art—in abstract science and the arts of life.

The work of Mr. Clark is an attempt to resuscitate the taste for the quid utile species of anatomy. That this spirit influences the author will be evident, from the motto which is to be found upon his title-page, as well as from one or two passages which we

shall quote. The motto is taken from Cheselden.

"The study of anatomy," said that old and excellent surgeon, "as it leads to the knowledge of nature and the art of healing, needs not many tedious descriptions: what is most worth knowing is soonest learned, and least the subject of disputes; while dividing and describing the parts, more than the knowledge of their uses requires, perplexes the learner, and makes the science dry and difficult."

This sentiment of Cheselden is sufficiently expressive, and embodies the spirit of learning anatomy and teaching it, which may be said to be only just overthrown.

Mr. Clark assures us that his own motive in offering the present volume to the public was the following:—He felt the want of some assistance to draw his attention to practical points during his own early dissections of the nerves; and he is deeply impressed with the importance of combining the study of physiology with anatomy, a point much neglected in the dissecting-room: should he fail in his desire to supply, in some measure, this desideratum by the present manual, he will have to regret, in common with most unsuccessful authors, that his ability was not equal to his wishes.

A little farther on, his own opinions with respect to minute dissections are still more unequivocally stated. We extract a note to the brief introduction to the work.

"Previous to commencing the study of this branch of anatomy, let me warn the student against yielding too early to the desire of being *very accurate* in the more minute detail of various parts of the nervous system; I mean such detail as can have no evident points of either practical or physiological importance connected with it: for, let him be assured, such a course will most materially interfere with his acquiring a useful knowledge of his subject. Nor am I speaking at random; for every one who has been in the habit of attending much to the dissecting-room must have remarked the singular infatuation with which, in spite of all intreaty, some pupils will devote their whole time to unravelling and committing to memory a series of trifling points relative to the position of certain minute vessels and nerves, which it requires a great effort to retain, and which can, and will, never be turned to any useful account: and this all to the neglect of practical points of the first importance. Let the student, then, acquire first of all, what will stand him in good stead when he is practising his profession; and afterwards at his leisure he may become a more finished anatomist: for, however interesting much of the detail above alluded to may be, it is certainly not *essential* to the practitioner, and is very rarely retained except by those who are constantly dissecting. So true is the remark, that what is most useful is most easily acquired and remembered!"

It will easily be gathered from the tenor of our observations, and our readers, indeed, are very well aware, that we are at issue with Mr. Clark, and those who think with him on this subject. We are averse to enter again on a question, on which we have already and often touched; but we cannot refrain from briefly defending the views of the promoters of minute anatomy.

1. The study of anatomy must be considered as not merely the acquisition of a certain number of facts, to be subsequently applied to the solution of questions in the practice of medicine and surgery, but as a system of *education*. The habit of exact and minute investigation is excellent mental discipline. It qualifies for other investigations, and the young man who has been taught, and who has learnt, to observe closely where the advantage is not palpable, will be likely in after-life to carry the *habit* of application, of method, and of accuracy into his practical pursuits. The positive knowledge which it is possible for a student to acquire is, after all, inconsiderable. The clamour of the day would make him a sciolist. He is condemned in a brief period to run from subject to subject, and from lecture to lecture—he is told what is the smallest modicum he may be contented with in each department—and the grinder finishes the job by *veneering* the ill-jointed rickety upholstery.

2. It is easy to say that the student

should confine himself to points of practical importance. But, when an excuse for indolence is offered, are students so zealous, is youth so calculating, that that will fail to be eagerly received? The neophyte will not stop at that nice point which the teacher so confidently talks of, and laxity of study, once encouraged, will be carried on by its own inertia. The young man is taught to ask himself incessantly—"Is it *necessary* that I should fatigue myself with learning this?" He is told to gauge his work by the uncertain rule of future need. Present convenience will find many and cogent reasons for clipping that work to the uttermost.

3. The student of to-day is the raw material of the teacher of to-morrow. If his own mode of education has been lax, what are we to expect from the one that he will inculcate? Remedies for moral, as for physical ills, are occasional and violent—the tendency to aggravation is gradual and sure. A bad system is the worst of evils, for nothing but revolution can remove it, and revolution, even when effectual, is always late. How long inaccurate anatomy was in request, and how continually it was becoming more inaccurate still, before the late sudden alteration took place! Should we again fall back to the vicious state in which we were, the *science* of anatomy in this country would be destroyed. Nothing but the most untiring exertions can repair what we have already lost, and restore us to equality with our neighbours.

4. When we are told to attend to practical points, we must first agree on what are practical. Supposing science limited, and our knowledge of it perfect, we might do so. But discovery is daily extending the sphere of the practical application of minute anatomical knowledge, and, for discovery, it is necessary that that knowledge be minute. Some years ago, the utilitarian might have said—"Why my young friends, harrass yourselves with making out the branches of the portio dura, and of the three divisions of the fifth nerve? There you see them expanded on the face—they go every where—supply it all—the broad fact is practically quite sufficient for you." But, when our young friends were consulted on a case of tic douloureux, or of paralysis of the portio dura, they must have felt, and they often did feel, much embarrassment. It is well known that Mr. John Bell proposed, in one case, to divide the divisions of the fifth where they emerge upon the face, in an instance of tic douloureux, concluding that the portio dura, being left, would be quite enough for practical purposes. Our increase of information has shewn us, that what was then thought practically sufficient is really not so; but it cannot tell us what is the precise limit of practical utility.

These remarks, hurried and imperfect as they are, are not directed against Mr. Clark, but are offered as a defence for those, who think that anatomy should be very minutely acquired, without reference to views of what may appear of immediate practical utility. Anatomy is the chief thing which the *student* has to learn. He has time to learn it well, and he ought to learn it well. He is sure afterwards to forget much of it, but he may be certain that, the more he acquires at first, the more he will retain at last.

When we turn from Mr. Clark's observations to the work itself, we cannot but applaud its execution. It is very superior to all the manuals of the old class, and to most of the present. We are personally unacquainted with the author, and can, therefore, have no motive, save the most correct one, for expressing our sense of the merits of his work. Whilst we differ from him in the general views that we have touched on, we feel great pleasure in publicly complimenting him on the modesty, industry, and discrimination, that he has evinced in the construction of this little volume. We beg to recommend it to our readers; we shall personally introduce it to our pupils.

II.

Spirit of the Foreign Periodicals, &c.

On the Varieties and Pathological Differences of the Human Race.—Remarks on the Varieties of Vegetable and Animal Species.

The venerable Nestor of German medicine, Dr. Hufeland, introduces the first number of his long-established Journal for the current year, by a paper with the above title.

The attention of scientific men, says he, has of late years been much occupied with the examination of the varieties of the human race, in reference to their colour, their general structure, the formation of their skeleton, and their physiognomy. Some writers have gone so far as to speak of originally distinct families, or great tribes of mankind, and they have maintained that each large district of the earth, as it has its peculiar plants and insects, is, in a like manner, tenanted with a peculiar race of men. Man, however, is not to be viewed on the same footing as vegetables, or any of the lower animals —he is the first member of a higher grade of beings, a spirit-born existence (geist-geborner.) The more accurately that we attain to a knowlege of different tribes and nations, the more completely are we convinced of the truth, that there is only one original species of the human race, and that all men are derived from one common stock.

In reference to the question often proposed, whence have arisen the individual varieties of the human race, which we daily see in our travels? we should attend to the following considerations:—The formative effort or impulse (bildungstriebe) is subject to certain deviations or disturbances from the healthy or natural standard, in consequence of a variety of influences. Hence arise various defective directions of the primary arrangement and development of the whole, or of parts only of the being, both before as well as after birth. It has been too much the custom, hitherto, to examine the varieties of man only on the large and extended scale of nations, or of large masses of people, and to overlook the differences which may be observed among the different inhabitants of a very limited district, or members of small tribes. It would not be difficult to discover in every town and village varieties of men, as obvious and as well marked as that of the Greenlander is from the Mongolian, or either of these is from the German. We see these varieties extending and propagating themselves, and thus giving rise to other beings, in all respects like to themselves. For example, the Cretins differ in bodily formation and in mental powers from the surrounding tribes much more obviously than the negroes, or native Americans, differ from any of the inhabitants of Europe. We should also remember that the varieties of some of the lower animals, as for example of the dog race, are much greater and more conspicuous than those which we observe in the human family; and are we to believe that each of these varieties constitutes primarily and specifically different tribes, and not rather that they are all derived from one common and original stock?

In all our reasonings upon the causes of the varieties of animal tribes, we are to keep in mind that congenital defects or deviations, and even such as have been acquired after birth, may be propagated and communicated to the offspring of the individuals, and may thus become the distinctive attributes of a particular race. The physiognomy, the character, the formation, the disposition to certain diseases, we observe to pass from parents to their children, and to become distinctive marks of certain families or tribes. It is known that the descendants of a particular family, through several generations, have been characterized by having six fingers and six toes on their hands and feet; and it has been often remarked that the Jewish male children are born with shorter prepuces than the infants of other tribes.

The deviations of development which are communicable by propagation are not always manifested immediately on the birth of the individual, but often they appear for the first time at an ulterior period of growth, or in consequence of some diseased action becoming established in the system.

The two chief causes of the varieties of the human race are climate and descent. The influence of climate, under which general term we comprehend not only the temperature, the state of the atmosphere, and the prevailing winds of a district, but also its soil, its waters, its geographical elevation, its vegetation, and the means and resources of subsistence with which it is provided, is too obvious to escape the attention of any observer. Men, beasts, and plants all feel and testify its power. In the case of the human race, the hue of the skin varies with the climate. In cold regions it is fair; and as we approach the equator it becomes browner and browner, until it acquires a jet black colour.

Buchanan, in his travels through India, alludes to a tribe of black Jews, who have probably been settled in the district which they now occupy ever since the period of the captivity under Nebuchadnezzar, 3000 years ago, and who retain all the national peculiarities of their race, with the exception only of their colour, which is now quite as dark as that of the surrounding tribes.

From the consideration of the external and more obvious differences of the different tribes of mankind, Dr. Hufeland proceeds to examine the peculiarities of constitution, which not only every tribe, but also almost each individual of every tribe possesses, and the study of which is so necessary to the physician, and to the moral philosopher. He very justly remarks, that what a correct knowledge of the dispositions and inclinations is to the physician of the mind, a knowledge of the corporeal temperament and constitution is to the physician of the body.

We may classify and arrange the inward or constitutional differences of men, first in reference to their purely physical or material relations, distinguishing them into the dry, the moist, the firm, the fatty, the lean, the hot, the cold, and so forth; and secondly, in reference to their physico-psycological relations or temperaments, according to the division of Galen. Dr. Hufeland prefers to associate together these two methods, and to consider man in all his relations (in seiner totalitat), physical or corporeal, as well as moral or spiritual. It is only by following this plan that we can rightly study and appreciate the "nature of a man," or discover and describe correctly the essential differences of the human race. Dr. H. admits the following varieties of physico-mental constitutions: the strong —the weak—the fiery or hot—the excitable or sanguineous—the cold or sluggish—the compact or tough (verschlossene oder zahe), corresponding with the melancholic temperament of other authors—and, lastly, the sensitive or nervous. The last mentioned is an offspring or production of later times, and is the birthright (geburtseigenthum) of a highly educated and refined state of society. Its prominent and characteristic attributes are, the preponderance or large development of the nervous system; an unusual susceptibility to all impressions, and a consequent excitable and mobile state of the whole body; a changeableness and tendency to irregularity in all the functions, bodily as well as mental; the existence of unusual sympathies, and the disposition to sudden transitions from one extreme to another; the prevalence of phantasies and passing delusions, and the proneness to imaginary complaints, to cramps, to hypochondriasis, and hysteria. Besides the above general and comprehensive classification of constitutions, we may with advantage recognize another division, founded on the preponderance of certain functions or qualities of the corporeal frame; such as the dry and tense constitution —the lax and spongy—the lymphatic —the gastric, bilious, and atrabilious —the rheumatico-catarrhal—the psoric (characterized by a defective cutaneous secretion and growth; hence always an impure skin, and a constant tendency to eruptions on the surface)—the venous-hæmorrhoidal—the phthi-

sical—and the apoplectic.—*Hufeland and Osann's Journal.*

The doctrines of Hufeland, in reference at least to the common origin of the various tribes or races of mankind, are those which are maintained by most of the natural historians of the present day. The influences of climate, food, occupations, &c. in modifying the external appearances, and sensual attributes of certain species, both in the vegetable and in the animal kingdoms, are very remarkable. The horticulturist can prove to us, that the crab has been transformed into the apple, the sloe into the plum; that flowers have changed their colour and have become double, and that these new characters can be perpetuated by seed; that a bitter plant with wavy sea-green leaves taken from the sea-side, where it grew like wild charlock, and transplanted into the garden, has lost its saltness, and has been metamorphosed into two distinct vegetables, as unlike each other, as each is to the parent plant—the red cabbage and the cauliflower. The different races of cabbages afford an astonishing example of deviation from a common type. It is only however by the intervention of art, and by all the niceties of the most careful cultivation that these varieties can be propagated; and we find that when the plants are neglected for a length of time, and permitted to grow quite wild, they have always a tendency to re-assume the characters of their original stock;—more especially if the soil be sterile, and not unlike to that of the sea-coast. This tendency to relapse to the original state was well exemplified in some individual plants which were seen growing in 1831 on the cornice of old London Bridge.

Even when the garden varieties of the cabbage, and of other plants can be propagated by seed, it deserves to be noticed, that these are always much less prolific than the wild individuals of the same species. Similar remarks may be applied to double flowers—the ovarium is frequently abortive, and the seeds when prolific are generally much fewer than when the flowers are single.

The following experiment narrated by M. Herbert in the Hortic. Transact. Vol. 4. illustrates forcibly the tendency of some plants to the formation of varieties.

"I raised from the natural seed of one umbel of a highly manured red cowslip a primrose, a cowslip, oxlips of the usual and other colours, a black polyanthus, a hose-in-hose cowslip, and a natural primrose, bearing its flower on a polyanthus stalk. From the seed of that very hose-in-hose cowslip, I have since raised a hose-in-hose primrose. I therefore consider all these to be only local varieties, depending upon soil and situation."

The influence of soils in causing a change in the colours of certain flowers is exemplified in the case of the hydrangea hortensis. In garden mould or compost, they are invariably red; in some kinds of bog-earth, they are blue; and the same change is always produced by a particular sort of yellow loam.

Not less remarkable are the changes and modifications which we observe to be induced in certain animals from the influence of domesticity and of other accidental circumstances. Take for example the different races of dogs. How much they differ from each other in point of size, in the length of their muzzles, in the convexity of their foreheads, in the colour and quality of their furs, and in their attributes and instincts! We look in vain in the wild state for mastiffs, harriers, spaniels, greyhounds, terriers, curs, &c.; yet all these varieties have sprung from a single race, approaching very nearly in characters to the wolf.

Different however as these varieties of dogs are in outward appearances, the one from the other, there is no foundation for the fanciful theory of Lamark respecting the growth of new organs, and the gradual obliteration of others. The greatest departure from a common type—and it constitutes the maximum of variation in the animal kingdom—is exemplified, we are informed, in those races of dogs, which have a supernumerary toe on the hind foot with the corresponding tarsal bones; a variety

analogous to one presented by six-fingered families of the human race, and which has been alluded to by Hufeland in his observations. Our author has also alluded to the occasional transmission of certain new and acquired habits and qualities from parents to their offspring. The following is a very curious instance of a new hereditary instinct. "There is a race of dogs employed for hunting deer in the platform of Santa Fé in Mexico. The mode of attack, which they employ, consists in seizing the animal by the belly and overturning it by a sudden effort, taking advantage of the moment when the body of the deer rests only upon the fore legs. The weight of the animal thus thrown over is often six times that of its antagonist. The dog of pure breed *inherits* a disposition to this kind of chace, and never attacks a deer from before while running." On the other hand, there is a mongrel race of dogs employed by the inhabitants of the banks of the Magdalena in hunting the white-lipped pecari, in which the influence of a new instinct is equally conspicuous. "The address of these dogs consists in restraining their ardour and attacking no animal in particular, but keeping the whole herd in check. Now among these dogs some are found which, the very first time they are taken to the woods, are acquainted with this mode of attack; whereas a dog of another breed starts forward at once, is surrounded by the pecaris, and, whatever may be his strength, is destroyed in a moment."

The qualities and disposition of the pointer, of the retriever (which stops and brings back the game of its own accord), of the shepherd's dog, and of many others, are strictly and truly of hereditary communicability.

However marked may be the differences of size, form, and habits of different races of domesticated animals, they have all, when left to run wild, a tendency to resume a common resemblance.

"It is well known that the horse, the ox, the boar, and other domestic animals, which have been introduced into South America, and have now run wild in many parts, have entirely lost all mark of domesticity and have reverted to the original characters of their species. Dogs also have become wild in Cuba, Hayti, and in all the Caribbean Islands."

These extracts are from the second volume of Lyell's Principles of Geology; a work replete with the most original instruction, and admirably calculated to inform and delight the lover of natural history.—*Rev.*

M. SERRES ON SOME OF THE LAWS OF PROGRESSIVE DEVELOPMENT IN THE HIGHER ANIMALS.

If you examine the adult skeleton, you find that certain parts of it are double, such as the ribs, the bones of the extremities, certain bones of the cranium, &c., while other parts—those namely which are situated in the line of the mesial plane—are single; for example, the spinal column, the sternum, the os hyoides, the vomer, and the ethmoid, sphenoid, and occipital bones.

This mesial *unity* appears at first sight to be opposed to the lateral *duality;* but, if we trace the progress of ossification in the young animals, we at once discover that the central or mesial parts are at first double also—the corresponding or analogous portions being strictly lateral—and therefore that the whole of the osseous system obeys one common law, the law of symmetry, or of lateral duality.

We find that in the earlier periods of life, there are two demi-crania, two demi-spines, two demi-sternums, &c. and moreover that the law of double formation affects equally the development of the softer parts. Thus there are two demi-brains, two demi-wombs, and two demi-livers. Let us examine the formation of the spine a little more attentively.

In the young embryo it is found to consist of two membranous folds, quite distinct or separated from each other, the one being situated on the right side, the other on the left side of the mesial plane. I have observed them in the young chick in about twelve hours after

the commencement of incubation.—There are therefore at this early period of formation two demi-spines, just as there are two parietal, and two temporal bones. In from twelve to twenty-four hours subsequently, we perceive on the two sides of these membranous folds numerous yellowish-white points, almost quadrilateral in shape, but having their angles rounded. These are the rudiments of the vertebræ. As the osseous formation advances, the two lateral surfaces gradually approach to each other, until they meet along the mesial line, and form a uniform solid case inclosing the spinal marrow. This soldering together of the lateral halves takes place in the chick from the thirteenth to the fourteenth day of incubation. The dorsal vertebræ are united a good deal earlier than the lumbar and caudal vertebræ. Similar appearances to those now described may be seen in the young human embryo. The double line of osseous points, which are to form the central part of the sacrum, are very distinctly seen in the young embryo. Of all the vertebræ, the atlas is the most tardy in being ossified. It usually remains more or less cartilaginous until the end of the first year, and at this period we observe two lateral points or nuclei, which gradually converge towards each other, to form the body of the vertebra. If the process of development is from any cause arrested at an early period of fœtal existence, the two lateral portions of the spinal column may remain disunited, and as it were, cleft through and through, either at one or more points, or along the whole extent of its tract. If this arrested development has occurred in the bodies of the cervical vertebræ, the œsophagus may enter into the cleft vertebral canal; if, on the other hand, the sacral vertebræ are affected, the rectum will be the part engaged, and this protrusion will sometimes be so considerable as to occasion a herniary tumor outwardly. M. Lisfranc and myself have examined several cases of these anomalies. In the last-mentioned sort of malformation—namely, when the rectum protrudes between the cleft sacrum outwardly on the back, we have been enabled to remedy it partially by compressing the herniary tumor, and thus causing the discharge of all the meconium, and afterwards by maintaining the reduction of the gut by means of a compress and bandage. But a more common malformation is that, where the spinal apophyses only of the vertebræ are imperfectly developed, and remain therefore disunited: the spinal marrow and its membranes are protruded through the fissure, and the disease which has been called spina bifida is induced. In some rare cases, the whole extent of the spinal column is in this imperfect state, and the vertebral canal is open throughout from the cranium to the coccyx.

These diseases illustrate and fully confirm the law of double development of the spine; and, on the other hand, this law affords a satisfactory explanation of their occurrence.

Let it therefore be well remembered that the skeleton is formed of two analogous and similar halves; the one on the right side, the other on the left. Every person knows that the right half is somewhat more strongly developed than the left one—a phenomenon which is observable chiefly in the upper and lower extremities. This predominance is apparent even in the vertebral column; the left half of this column being rather more feeble than the right half.

This relative weakness of one side is the primary cause of incurvations of the spine, as Dr. Guerin first clearly established. In this defect of symmetry we trace the cause of the greater frequency of curvatures towards the right than towards the left side. In a hundred cases of spinal deviation, there is scarcely one, in which the spine is inclined towards the left side. The curvature to the right side does not compromise life to the same degree as that to the left side; and for this reason, that the heart and the great vessels connected with the centre of the circulation are less seriously incommoded. When the curvature is towards the left side the central organs of circulation are necessarily more impeded in their free play, and life is therefore more seriously endangered.

This is one of the many advantages of a philosophical study of comprehensive anatomy;—an anatomy which is not limited to a mere discovery of the structure of living bodies at one period only of their existence, but which carefully and minutely attends to the multifarious progressive changes which occur from the earlier stages of their development, to the full maturity of their growth. If an infant have its spine inclined towards the right side, the chances are greatly in favour of its life being saved, even although no remedial measures are used for its relief; whereas, if the deformity is on the left side, the utmost care and attention will be necessary to prevent the existing impediment to the circulation and breathing proving fatal at, or about the period of puberty.

It rarely happens that an anatomical truth does not lead to some useful discovery in pathology. The ingenious reasonings of M. Guerin have pointed out a rational and successful treatment in many cases of spinal deformity.—Formerly surgeons were in the habit of endeavouring to rectify such cases by drawing the spine, above and below the seat of the deviation, in opposite directions. M. Guerin, on the contrary, has substituted a method which acts directly on the centre of the deformity, by inducing a curvature in a direction, the reverse of that which it is intended to remedy.

We now pass to the consideration of the osteology of the cranium and chest; and in the development and formation of these parts we shall find that the same laws operate, which, we have attempted to shew, influence the growth of the vertebral column.

And first, what is the cranium? If it is, as some authors maintain, to be viewed as an expanded vertebra, or as an assemblage of vertebræ; if the encephalic cavity is nothing else than the vertebral canal dilated and "ramené sur lui-meme," if the encephalon itself is the mere continuation of the spinal marrow, then we should à priori infer, that the mode of formation and of the development of the two bony cases will be nearly the same, or at least that it will be analogous. Let us now examine whether these predictions are confirmed by anatomical enquiries. M. Serres has pursued this subject with great ability. After having, as it were, decomposed, or resolved a vertebra into its fundamental and constituent portions, he takes each of these portions and compares them successively with the corresponding elementary bones, which enter into the formation of the cranium.

In this manner he has shewn the perfect conformity in structure of the occipital bone and of an individual vertebra; and by following this analytic process, he has pointed out a similar, but certainly a much less obvious conformity, which may be traced between the anterior and the posterior divisions of the sphenoid bone, of the æthmoid bone, and even of the bones of the face, and the primary constituent portions of a vertebra. This conformity or analogy becomes less and less conspicuous, both with the cranial and with the facial bones, the farther they are distant from the cervical extremity of the spine. M. Serres admits six cranial, and two facial vertebræ. Other anatomists have differed as to the exact number of these; but the opinions of all are fundamentally the same—namely, that an unequivocal resemblance may be traced between the formation and development of the vertebræ, and of some of the bones of the head. All the lateral portions or segments of the cranial vertebræ are greatly amplified and expanded for the purpose of enveloping the brain and the organs of sense, while the bodies or central portions (for example, the basilar part of the occipital, the body of the sphenoid, the perpendicular plate of the ethmoid and the vomer) are proportionally diminished or rudimentary. Now these bodies or central portions, when examined in the young fœtus, are, all of them, found to be double or mesially divided, just as we have already shewn to be the case with the bodies of the vertebræ themselves.

The posterior part of the occipital, the two parietal, and the frontal bones, may in truth be viewed as analogous

to and corresponding with the spinous processes of the vertebræ.

This analogy in the formation of the bones of the head and of the vertebræ being once established, we are provided with a key to the explanation of many of the irregularities which are occasionally met with in these bones. For example, the base of the occipital bone, and the body of the sphenoid, remain sometimes quite disunited, and a portion of the encephalon protrudes, or forms a hernia into the back of the pharynx.

If the body of the ethmoid is imperfect from an arrested development, a cerebral hernia into the nasal fossæ takes place. This imperfect state is much more frequently observed in the occipital, parietal, and frontal bones; and hence congenital herniæ of the brain are usually seen at some part of the convex vault of the cranium.

Those who wish to know further particulars on this branch of congenital pathology, will do well to consult the writings of the St. Hilaires, father and son.

The primary duality of the spine, of the cranium, and of the face, explains the etiology of a multitude of congenital diseases. In truth, all the organs or parts of the body, which in the adult subject are found to be single, and which are situated in the mesial line, were originally double, or cleft in two in the middle, and became united, or, as it were, soldered together, at some definite period of intra-uterine life. If this law holds good in organogeny, it must be equally so in pathology, and it is manifest that the causes which, in the cases alluded to above, operate on the spine and on the cranium, may act in the same manner and degree on the chest, abdomen, and on the organs of generation.

If we examine the sternum at different stages of fœtal life, we find a beautiful illustration of this law of mesial duality. In the very young fœtus, the sternum is quite cartilaginous, and then it is laterally double, or cleft along its mesial line. Gradually we observe a double row of osseous points or nuclei, which in course of time coalesce, and thus the mesial line of separation is obliterated.

Sometimes we find that there is a large cleft or aperture in the centre of the ossified sternum. This imperfection is attributable to the progressive development of the bone having been partially, or only at one point arrested. When this cleft is considerable, the heart may be protruded through it, and thus the disease, which has been designated ectopia cordis, is induced.

In pathology, as in other sciences, well-established facts always tend to explain and illustrate each other. A fact which, considered by itself, may appear to be very curious and strange, becomes, if associated and viewed along with other analogous facts, simple and of easy explanation. This is the case with the congenital disease or imperfection, the fissure of the palate—a disease for the remedying of which, the operation of staphyloraphy has been contrived.

Now what is the true nature or cause of this fissure? It is in truth the result of a progressive and normal development of the bone having been stopped or arrested at some period of fœtal life. The same holds true of hare-lip, of fissure of the alveolar process of the maxillary bones, of spina bifida, and numerous other congenital malformations. The organic lesion, in all these instances, proceeds from one and the same cause—arrested development.

In one case of fissure of the sternum, which fell under M. Serres' notice, there was also a mesial fissure or division of the diaphragm; the aorta and œsophagus were displaced by a hernia of the intestines which had taken place through the unnatural opening. Olasner has recorded a case, somewhat similar to this one, in which the child lived to nine years of age.

In the early stages of embryotic existence, the abdomen, throughout its whole length, is quite open, and the greater part of the bowels are lodged within the sheath of the umbilical cord. It not unfrequently happens that this open state of the abdomen does not close entirely by the period of birth; and hence the origin of most cases of con-

genital hernia. When the aperture is large and the protrusion is considerable, the lesion is rarely curable.

Such cases are very common, and numerous examples of malformations of the abdominal parietes have been recorded by all the systematic writers on morbid anatomy. The rationale of these irregularities of formation is the same as we have already alluded to in reference to the malformations of the osseous system. The lateral halves of the abdominal parietes are at first quite apart and separated from each other; and if, therefore, the progressive and ulterior development is arrested, the child at birth will be found to exhibit an imperfectly closed abdomen. The two halves of the central or mesial organs of the body gradually approach each other, until they coalesce, and form one continuous and uninterrupted structure. Such are a few illustrative examples of that law of symmetry, which Meckel has denominated the "lex Serriana" (in compliment, we presume, to M. Serres), and which so satisfactorily explains many of the congenital deviations of structure. We now proceed to investigate another topic of organogeny, which has hitherto perplexed most philosophic anatomists.

On looking at the osseous and the other organic systems of the body, we find that many of them are hollowed out into cavities, perforated with apertures for bloodvessels and nerves, and traversed with canals, which either receive and convey the fluids necessary to life, or transmit these into the surrounding peripheral parts.

Now what is the rational explanation of these formations? Let us take, for example, the vertebral column, and examine the various apertures which it exhibits for the passage of numerous bloodvessels and nerves. On the side of each vertebra, there is a semi-elliptic hollow or excavation, which, being applied to a similar hollow on the body of the next vertebra, forms an aperture for the passage of a spinal nerve and some bloodvessels. The formation of these vertebral apertures is effected in the same manner as that of all other apertures or perforations of the osseous system—namely, by the re-union of different portions of the bone during its process of development. For example, the foramen magnum of the occipital bone is formed by the conjunction of the four pieces, of which the bone originally consisted; the superior and inferior maxillary holes of the sphenoid bone result from the coalescence of the two halves of the alæ, and the same is true of the foramina rotunda and ovalia, and also of the meatus auditorii. Such is the mode of formation of all the apertures and passages which we observe in a mature bone; the bone originally consisted of several pieces, and as these pieces approached each other in the process of development, a cleft or vacant space was left.

The same law holds good in reference to the perforations which we find in many of the soft structures and organs of the body. The septum of the auricles is, every one knows, cleft in the fœtus. Now this septum is, like the diaphragm, formed of two pieces developed apart from each other; the one portion descending from the upper wall of the auricle (which is originally a single sac), and the other portion ascending from its lower wall; and, as these approach each other, a cleft or unclosed space, the foramen ovale, is left. This cleft or aperture is always proportionately larger in the young than in the advanced fœtus.

In the same manner, we may explain the formation of the various apertures through the diaphragm for the passage of the vena cava, the aorta, and the œsophagus; and not only of these apertures, but also of the pupils of the eyes, and of the openings of the mouth, the anus, the vagina, &c. The margins of all these openings were at one period of embryotic life imperfect; and all these openings, without exception, were formed by the "adossement" or meeting together of two elliptic or semicircular muscles. Some of these parts or structures, which are normally open and perforated in the mature fœtus, were primarily formed of serous-looking membranes, which were quite closed through all their extent. If the portion which corresponds to the opening re-

mains longer than the period assigned to it in the series of developments, the child is born with one or more of its passages imperforate.—(These statements are, it must be confessed, far from being easily intelligible.—Rev.) This malformation is not unfrequent at the anus and vagina.

What has been stated in reference to the formation of the apertures in the bones and other parts of the body, may be applied to the explanation of the development of the various canals, as of the nasal, intestinal, urinary, &c.; and, in short, what is a canal, but merely a lengthened or prolonged aperture? The walls of the canal were at some period of fœtal life composed of two or more detached lateral portions, and these portions, gradually approaching each other, at length coalesced, so as to form a continuous and uninterrupted passage.

Thus the nasal canal has been formed by the meeting together and union of the superior maxillary, the vomer, and the turbinated bones. The central canal of the spinal marrow has arisen by the union, anteriorly and posteriorly, of the two lateral halves of the medulla, leaving a space between; and the intestinal canal is developed in a similar manner—by the concentric coalescence of separate lateral portions—as has been admirably described by Wolf.

The mode of formation of the urethra, also, is quite the same; and for several reasons I select this canal, to offer a few general observations on this curious subject of organogeny.

When the pelvis is still unclosed in the young embryo, the canal of the urethra is cleft throughout its whole length —the two lateral halves of the penis and of the clitoris are separated from each other, and the perineum is open along its mesial line, where the raphe is afterwards situated. These two halves of the genito-urinary organs gradually approach each other, and at length meet and coalesce about the time when the two ossa pubis become united. This coalescence takes place on the upper surface first, and afterwards on the lower. Anterior to this event, there is in fact no distinction of sexes; and all young embryos are alike.

When the union has taken place, the two branches of the clitoris and of the penis present so obvious a projection, that at this period—from the fortieth to the fiftieth day—all fœtuses appear to be males. But afterwards, as the fissure of the perineum contracts, and as the two halves of the urethra are approaching each other, a person might suppose that every fœtus was female. This second deception is manifested about the end of the second month of embryotic life.

We thus discover how it is that, at first, there is no recognizable distinction of sex; and that subsequently all fœtuses appear to be male, and then to be female, before the complete development of the organs takes place. If, therefore, the development of these parts is arrested at one or other of these periods, it is not surprising that a female child may at birth exhibit the appearance of the male generative organs, and, on the other, that a male child may exhibit the appearance of the female organs. This is the key to the explanation of the different sorts of hermaphrodism. The malformation of hypospadias (in which the canal of the urethra is more or less imperfectly closed) is readily explicable by what has been already stated. All male fœtuses, at one period of intra-uterine life, are affected with hypospadias, and, therefore, if the state of parts which constitutes this imperfection remains at birth, the child is born with a urethra more or less open along its lower surface. The open state or fissure of the canal may occur either near to the glans, or in the middle, or quite at the root of the passage in the perineum; and hence the varieties of the malformation which have been described by authors.—*Gazette des Hôpitaux.*

The Siamese Twins.

They are at present 25 years of age, of small stature (being about five feet in

height), and inactive constitution. Their physiognomy is strictly Chinese; their complexion is dark and glossy; their hair is long, black, and in tresses. The right twin is stronger than the left one, who seems, therefore, to be somewhat dependent on, and led by the former. Their heads, proportionate in size to the rest of their bodies, are sufficiently well formed; their foreheads are straight and moderately elevated. The bond of union between these twins consists in a tegumentary commissure, situated at the base of the sternum, and extending from thence downwards for two inches and a half, or three inches in length.

This commissure is susceptible of some elongation, and it may even be slightly twisted upon itself, without causing any pain or uneasiness to either twin. It is about two inches thick, and at its lower part is seen a single cicatrix, which is the umbilicus. While they were young, they could move and turn round upon each other; but since their tenth year, their movements have been much more limited. Even now they have a certain degree of liberty, as they can both readily lie on their sides at the same time, and take the position which they find most easy. The left twin has rather less freedom of movement in his limbs than the other; his right shoulder projects considerably, and the arm of this side is always placed behind his brother's body.

The twins have a marked aptitude for most bodily exercises; they are fond of the chase, and in America they have hunted the deer, and have even been known to have killed the game with their own hands. Both of them can use fire-arms. The right twin can fire a fowling-piece with either of his hands; the left can pull the trigger with his left hand only. It is truly wonderful how admirably they co-operate with each other in the various manœuvres and exercises which they perform. They can swim as well as almost any single person. Their sleep is simultaneous; and one has never been observed to dose, without the other immediately doing the same. They almost always awake at the same time; but, whether this proceeds from the movements of the one first awake disturbing the other, is not exactly known. They are very fond of smoking.

With respect to the state of their alvine and urinary excretions, we are informed that these functions do not always take place simultaneously; the French narrator adds—"mais ils ont desiré que l'on n'insistat sur ces questions en presence de dames (!) qui assistaient à l'examen. Ce sentiment de pudeur ne se dement pas chez eux, et est tres prononcé."

When one of the twins was bled, they both fainted together. It has been stated that, some time ago, there was a quarrel between them, one desiring to bathe, and the other objecting; but this statement is quite erroneous, as there has been uniformly the most perfect concord and unanimity existing between them on all occasions. It is however quite true, that sometimes for several days together they do not speak a word to each other. Their intellects are considerably developed; they speak the English language with facility, and the French also moderately well. They are fond of painting, music, and poetry. Byron's works are great favourites with them. Sometimes they sing together. The memories of the two seem to be equally good; they will play at chess and at draughts with strangers, but never with each other.

When carried over to America, the captain of the ship attempted to benefit himself by exhibiting them to the public; but they, knowing that they were in a free country, claimed the protection of the laws, and ever afterwards they have received themselves the profits of their exhibition.

The exact nature of the cord or bond which unites the Siamese twins, has not been satisfactorily determined. It is uncertain whether it is a mere tegumentary ligament, or whether it contains within any communicating canal between the abdominal cavities. This question has been canvassed in England and in America by Drs. Anderson, Mitchell, and Bolton, who all agree in believing that there is a herniary sac or canal. The two former are of opinion

that various viscera, as the stomach, spleen, arch of the colon, and a portion of the liver, may be protruded into the canal; while Dr. Bolton thinks that the arch of the colon only is ever so displaced. It appears however to us to be very doubtful whether there is ever a genuine herniary protrusion of any of the abdominal viscera. The absence of all uneasy feelings in the various draggings to which the commissure or connecting band is subjected, after as well as before meals, leads us to believe that only the suspensory ligaments of the liver in each, imbedded in a quantity of cellulo-fibrous tissue, and both terminating at the common umbilicus, is contained within the commissure.

It has been asked, whether either of the Siamese twins has ever expressed or indicated by their behaviour the existence of any sexual propensities.—There appears to be no exact information on this point; but the French writer states that he has observed them to exhibit "une sorte d'emotion" in the presence of females, and that they invariably displayed "des prevenances marquées" to the fair sex. He reserves however the satisfactory solution of this curious problem to "the romantic sagacity of some of those Amazons who run after every thing that is new and marvellous!"

In conclusion, the narrator alludes to the possibility of disuniting the two brothers by a surgical operation; but it is almost needless to discuss this subject, as it seems that they have formally expressed their resolution "de demeurer toujours unis."—*La Lancette Française, et Gazette des Hôpitaux.*

The names of the twins are, we find, Eng and Chang. They had an attack of ague in America. The paroxysms and intermissions were simultaneous in both. The minute particulars of symptoms, as to the beats of the pulse, the number of respirations in a minute and so forth are not detailed. Most fortunately the twins seem from all accounts to have an exact similitude of tastes, feelings, and desires.

CASE OF TWINS; THE SECOND CHILD BORN FOUR DAYS AFTER THE FIRST.

A young woman gave birth on the 1st of April to a female child, which was weakly, but seemed to have attained its mature growth. The placenta was expelled soon afterwards, and the patient was quite comfortable, although every now and then she felt motions, as of another child in utero. (It is not stated that the medical attendant examined the abdomen with his hand after the delivery, as he ought on all occasions to do, to ascertain the state of the uterus.) On the fourth of April, this woman was again seized with sharp labour pains, which, after lasting for several hours, expelled a vigorous healthy child. The after-birth followed in the course of a short time.

It is not certainly easy to account for the unusual delay which occurred in the present case. It deserves to be noticed, that previous to the first delivery a hæmorrhage had occurred.—Now it seems probable that one only of the placentæ had become partially detached at the time, and that this partial separation brought on the expulsion of one fœtus a short time before the full period of gestation had been completed. That the second child might remain in utero longer, was not improbable, seeing that it had an independent placenta, which seems to have been quite unconnected with the other one. The learned reporter alludes to the possibility of the children being the products of two different conceptions; but influenced by the statement of the woman herself that she had indulged in connexion only once, he rejects the idea of superfœtation. It appears, however, that the father was very unwilling to claim the paternity of both children, and endeavoured to escape the expence of maintaining two, on the ground that he had cohabited but once with the the woman.—*Wildberg's Jahrbuch der Staatsarzneikunde.*

REMARKS ON OSTEO-MALACIA, WITH CASES.

Cath. Ell, of a naturally vigorous and robust constitution, had enjoyed good health until she was upwards of sixty years of years. During the greater part of her life she had lived as an active servant in a family at Heidelberg, and at the age of fifty she had been admitted an inmate of one of the hospices there. The earliest symptom of the disease was the occurrence of pain in the loins: the pain became more and more severe, and it gradually extended over the whole extent of the back and also to the extremities, so that the walking was at first very difficult, and at the end of four months quite impracticable. The patient therefore was obliged to remain constantly in the horizontal position. By degrees the different joints became permanently flexed, so that both the upper and the lower limbs were kept continually bent upon and applied to the body, and could not be withdrawn. The fingers were contracted quite into the palms of the hands, and the patient was thus rendered utterly helpless.—About the sixth or seventh month after the commencement of the disease, a curvature of the spine was first noticed. About this period the pains became more severe, and were so much aggravated on the slightest movement, that upon making any exertion the poor woman could not refrain from screaming out. The appetite however remained quite vigorous, and indeed it did not at all abate until the last two or three months of her life, during which time she took very little food, but was distressed with an intolerable thirst. The excretions, with the exception of the urine, which was voided more frequently than in a state of health, were perfectly normal. The progress of the case is not detailed, and we are only informed that after two years of deplorable suffering the poor invalid died. The limbs, which had during the whole of this time been kept constantly bent and contracted upon the body, were relaxed after death, and could be brought into their natural condition. The body emaciated to the last degree, had become shortened nearly a foot and a half.

The great visceral organs, all more or less pale and reduced in bulk, did not exhibit any marked traces of disease. The mesenteric glands, the thoracic duct, and the lymphatic vessels, were carefully examined; but no lesion was detected in any part. In short, the soft parts of the body may be said to have been normal, at least in point of structure.

The cranial and facial bones did not present any morbid change. The thoracic and the upper part of the lumbar portions of the vertebral column formed a conspicuous curvature to the left side, and lower down the spine was curved in the opposite direction. The texture of the vertebræ, and more especially of the lumbar ones, was unusually soft and yielding: their cells were very large and were filled with a reddish fluid. The intervertebral cartilages were in a healthy condition.

The thorax was inclined quite over to the right side; on the ribs there were more than twenty abnormal articulations, (sur les cotes il y avait plus d'une vingtaine d'articulations contre-nature). Of these articulations those on the right ribs were nearer to their vertebral extremities than those on the left ones: they were formed by a fibrous mass of thickened periosteum, and were so flexible that they could be readily moved in all directions. Several of these articulations were very near each other, being not further apart than an inch or so. The sternal and spinal ends of the ribs did not exhibit any appearance of enlargement, as is usually seen in cases of rachitis. So yielding was the texture of the ribs in consequence of the extreme tenuity and fragility of their outer lamellæ or compact shells, compared with their cellular or spongy tissue, that by moderate pressure with the fingers, they could be easily broken or crushed into different pieces. Of all the bones, the sternum presented the most striking "ramollissement:" it was rather thicker than usual, but it might be crushed between the fingers or cut with a knife, with

the greatest ease, the outer shell or lamina being very thin and fragile. The bones of the pelvis were so soft, that they could be readily bent, and when firm pressure was made on the right and left ilium at the same time, the two opposite sides of the pelvis were approximated to a certain degree.

The crista of the os ilium was exceedingly soft, and its outer lamina was very thin and perforated in several places. Notwithstanding these great changes in its osseous walls, the dimensions of the pelvis were not, we are told, perceptibly altered. The bones of the upper and of the lower extremities had almost quite escaped the effects of the disease; for with the exception of the extreme "gracilité" of their texture, they were scarcely, if at all affected. The long bones were slightly bent, but so slightly that it could not be said that they were deformed from disease; and their condyles were not at all enlarged, as is usually the case in rickets. The scapulæ exhibited a morbid character, intermediate between the softening of the pelvic bones, and the tenuity of the long bones; their bodies being exceedingly attenuated, and their edges and processes being considerably softened.

In concluding the report of this case, it may be remarked that all the bones of the trunk were more or less tumefied, and that this change was owing to the increase of their spongy or cellular texture at the expense of their compact walls. The vertebræ had undergone this morbid lesion in the greatest degree, and as they had to bear the superincumbent weight of the head and body, they gradually gave way to one side, and thus was occasioned the double curvature, which we have mentioned.

Case 2. Cath. S., 36 years of age, born of healthy parents, had enjoyed very good health until about her 30th year, at which time she was pregnant with her first child. During the greater part of her pregnancy she suffered from most severe pains in the sacro-lumbar region. These ceased after delivery, and her health seemed then to be re-established. Two years subsequently she was again pregnant, and the pains returned with even more severity than on the former occasion, and they became so aggravated that she could not walk, but with the greatest difficulty. After delivery, they abated for about two months, when they were renewed, and then extended to the chest and to the upper and lower extremities. About this period it was remarked by this patient's acquaintances, that her height was very sensibly diminished. She became pregnant a third time, the pains continuing until the latter half of this pregnancy, after which they ceased almost entirely. The child was well grown and healthy. The health of the mother remained good for nearly two years until the Winter of 1832, the only inconvenience of which she complained being a sharp pain in the region of the sacrum whenever she stooped or took active exertion. She was admitted into the Heidelberg Hospital in Feb. 1833, at which period the pain in the back was very severe, and had extended upwards along the spine, and also over the greater extent of the pelvis. Her breathing was considerably distressed, and in consequence of the excessive tenderness of her feet, she could not walk but with difficulty. On examining the spine, it was found to be considerably distorted, (the nature of the distortion is not stated,) and the sacrum was bent inwards, and was very tender on pressure. Her general health gradually decayed, and she died in a state of extreme marasmus.

The examination of the body appears to have been most imperfectly performed; at least no detailed report is given by the author.

The chemical analysis of the ribs and vertebræ shewed that "the proportion of their organic and inorganic constituents was sensibly different from their condition in health. The bile and the blood contained a large quantity of phosphate of lime, and of other phosphatic salts."

General Remarks on the Osteo-malacia of Adults.

As yet we have not sufficient data to enable us to judge of the influence of

climate, or other causes, on the development of the disease. It has been remarked by many observers, that it is not more frequent in those places where rachitis is endemic. Sedentary employments, especially if combined with imperfect nourishment, certainly predispose to that cachectic state of the system, which is apt to induce softening of the bones in adults. Women, and especially those who have been recently child-bearing, are much more subject to it than men. Instances are, however, on record of its occurring in young females, and also (but this is still more rare) in women of very advanced years.

The male sex is not exempt from the disease, as appears from the writings of Meckel (Manuel d'Anatom. Pathолog.), Saillant (Ancien Journal de Med.), and others. The greater number of the cases among married women have occurred between 30 and 40 years of age, and in persons who have been exposed to destitution and distress. It is very rarely observed among the respectable classes of society. The same remark is applicable to the cases which have been seen among male patients.

The characteristic symptoms of the disease are, sharp pains in the lower part of the spine and through the pelvis, difficulty in walking, great debility and emaciation, deformity of some part of the osseous system, and, lastly, an abnormal condition of the urine. The pain is at first felt at one part only of the spine, usually over the lower lumbar vertebræ and the sacrum, and it is always aggravated by any motion or exercise. By degrees it becomes more and more continuing and severe, and it extends from the originally suffering region upwards along the spine, and also to the upper and lower extremities. Occasionally, there are intermissions of the disease for several months at a time; but, in almost all cases, when once the cachectic state is induced, the alteration in the composition of the bones returns at some future period, and becomes more and more complete, until the poor patient is hopelessly bedridden. In this miserable condition the patient may live for many years, unless, as is often the case, the breathing become seriously affected, and hydrothorax, or some other fatal malady is established.

The organs most apt to become diseased are certainly those of circulation and respiration, and to the distress thus induced is generally superadded a slow consuming fever, which is speedily followed by general atrophy. Previous to the occurrence of this febrile state, all the great functions of the body, and especially those which appertain to the generative organs, are usually performed as in health; the catamenia are regular, and the woman is as apt to conceive as if no morbid process was going on. The pains of osteo-malacia are always much aggravated by any motion of the body, and often they are accompanied with cramps of the limbs, and with a most distressing sense of anxiety and constriction of the chest, depriving the patient of rest during night or day. We have said that, in a large majority of cases, they are first felt over the sacrum and shooting through the pelvis; more rarely they commence in one of the lower extremities, and thence extend to the spine. They have this peculiar character, that the gentlest touch or slightest pressure on the bones, more especially on those of the pelvis, induces and aggravates them to a degree quite insufferable.

The patient becomes weaker and weaker, and at length loses all wish, even although the power remained, of moving from his bed. Often a long period elapses before the true nature of the disease is even suspected, and in deed in most cases, this knowledge cannot well be obtained, until the deformity of some of the bones has actually taken place. The spine first, and then the pelvis, are most early and most seriously affected. The dimensions of the pelvis become gradually more contracted, in consequence of the sinking in of the sacrum and of the ossa pubis, and also of the ossa ilii towards each other, until at length the delivery of a full-grown child, even by means of the perforator and crotchet, is rendered quite impracticable. Such, indeed, has been the history of most cases, where the Cæsarean operation has been found ne-

cessary. The fact of a woman retaining the ability to conceive, indicates how little the general health of the system sympathises, even when the morbid changes of the bones are most extensive and most serious.

With respect to the urine in osteo-malacia, it deserves notice that, in the very early stages of the disease, this secretion usually exhibits some marks of abnormal change; it becomes more or less decidedly turbid, and it deposits a whitish sediment, which is found to consist chiefly of phosphate of lime. This character of the urine generally continues during the whole progress of the disease.

In addition to the symptoms of osteo-malacia already enumerated, we may allude to others of occasional occurrence, such, for example, as permanent contraction of the joints, unaccompanied, however, with any enlargement of these, such as we observe in gout and chronic rheumatism. Sometimes the bones of the extremities are unusually friable, so that they break on the slightest exertion, or even by the force of mere muscular contraction. Cases are on record, where several such fractures have taken place in the course of the disease.

The functions of digestion and assimilation are often but little deranged, even when the patient has been bedridden for a series of years; not so with the functions of the thoracic organs, as already noticed. The breathing is almost always more or less distressed—at first, perhaps, from mere sympathy, or perhaps from irritation of the spinal marrow, and ultimately from positively organic changes in the structure of the lungs.

Mr. Wood, in the Med. and Phys. Journal for Oct. 1801, has pointed out the influence which the function of lactation appears to exert on the progress of osteo-malacia. He remarked that the disease in no case became developed at the commencement of suckling, and that, if it was already formed, its course was usually arrested during its continuance.

The anatomical characters of the bones, which have suffered from osteo-malacia, are these: not only the apophyses, but also the bodies or shafts of the bones, are more or less swollen and increased in volume. The "osseous mass" is, nevertheless, diminished; for the compact substance, or what is called the shells of the bones, are greatly attenuated, and the degree of this attenuation is proportionate to the duration of the disease. In the long bones, the compact parietes or shells sometimes do not exceed half a line in thickness. The spongy or cancellated structure also undergoes certain changes; the cells become much larger than in health, and the medullary canal is wider and altogether more dilated; in consequence, no doubt, of the absorption which is constantly going forward.

The osseous texture, therefore, is entirely changed, and this change is evidently not the result of a mere deficiency of the earthy constituents of the bones, although perhaps, at the commencement of the disease, this deficiency constitutes its most characteristic feature. The colour of the affected bones is always much darker than in health; sometimes it is almost black. They usually feel greasy to the finger; and, when examined, they are found to contain a large quantity of bloody fluid, and of a thin and reddish adipose matter. When boiled in water, they readily become still softer. The consistence of the bones affected with osteo-malacia necessarily varies in different cases; some may be bent, others may be cut with the knife. Although, in most cases, they are much more easily broken than healthy bones, this fragility is attributable rather to the extreme attenuation of their compact shells or outer lamellæ, than to any excess in the proportion of their inorganic to their organic component parts, or to any *softening* (as the term osteo-malacia implies) of the general osseous texture; "ils se rompent plutôt qu'ils ne se cassent." The curvatures and distortions in genuine osteo-malacia are much more frequent, and more complete in the spine and pelvis, than in the long bones of the extremities. The sacrum becomes at first inclined, and ultimately

quite convex forwards, the rami of the ossa pubis fall together, so that the symphysis forms a sharp projection, and the ossa ilii also become approximated towards each other. The inlet of the pelvis is thus most seriously diminished in all its dimensions, and the head of the fœtus may be irreparably detained beyond even the assistance of the perforator and crotchet. The bones of the cranium and face are of all bones the least subject to the morbid changes of osteo-malacia: they were however affected in some degree in the famous case of the woman Supiot. Hitherto the examination of the fractures and false articulations occasionally found in patients who have died from osteo-malacia has not been sufficiently complete, to enable us to give any very satisfactory details. The periosteum is generally more or less thickened, softer than in health, and also less firmly adherent to the affected bones.

In conclusion, the author remarks that in every case of osteo-malacia the periosteum and the medullary substance have been found more or less affected with change; that this change has been observed in those cases where the bones had not yet become diseased, but in which the symptoms only of the malady had been manifested; and that the earliest symptom is pain in the part which primarily suffers. Reasoning upon these data, he is induced to believe that the disease commences in, and is perhaps dependent upon an affection of the investing membranes of the bones. At first the inorganic elements of the bones are deficient, and subsequently the regeneration of the organic elements is involved in the morbid changes. As the disease advances, there is usually interposed in the osseous tissue an excessive quantity of discoloured adipose matter. It has been conjectured by some pathologists that osteo-malacia depends upon the presence of acrid fluids in the blood; but an argument against this theory may be derived from the consideration that the disease does not affect every part of the osseous system equally; the spine and the pelvis are the parts which most frequently and most seriously suffer. The doctrine of the local origin of the disease, (induced, we doubt not, by some unknown cachexy of the system,) already alluded to, accounts more satisfactorily for some of its features, such as its attacking persons apparently in good health, the occasional intermissions in its progress, &c. &c.—*Commentatio de Osteo-malacia. H. Proesch. Heidelberg*, 1835.

RADICAL CURE OF HERNIA.

Professor Gerdy has proposed the following plan. Having reduced the hernia, he pushes a fold of the integuments up the canal, so as to form a short cul-de-sac, like the finger of a glove, which plugs and obstructs the passage outwardly. He then fixes the integuments in this position by several sutures, which are to attach the bottom of the cul-de-sac to the parietes of the herniary canal or tube, and which by inducing inflammation, are expected to cause the two surfaces to adhere permanently together.

Lastly, he excites inflammation on the outer surface of the invaginated fold of integuments by dabbing it with the liquor ammoniæ, in the hope of inducing an adhesion of its parietes to each other.

Mr. Gerdy has practised his plan on two patients, one of whom has been entirely cured of his hernia.

M. Larrey however, to whom the Academy referred, reports unfavorably of M. Gerdy's proposal.—*Archives Generales.*

THE SMALL-POX, AS OBSERVED IN THE HOSPITAL AT VIENNA DURING THE YEAR 1835.

The number of patients affected with small-pox in the hospital during Jan. was 52, during February 64, during March 68, during April 85, during May 102, during June 107, during July 84, during August 111, during Sept. 113, during October 200, during Nov. 237, and during Dec. 276. The entire num-

ber throughout the year was 1002; and of this number, there were 469 cases of genuine variola, and 533 of varicella.

Of the 469 patients, 160 had not been vaccinated; in 109 the vaccination, or at least its success, was doubtful; and in the remaining two hundred, the traces of the operation on the arm were obvious and well marked. Of the 160 patients, who had never been vaccinated, 82—rather more than one half—died; of the 109, doubtfully vaccinated patients, 40 died; whereas of the other 200 cases, in which vaccination had unquestionably been performed, there were not more than 25 fatal cases. In six of these 25 cases, the fatal issue seemed to be owing to the putrid character of the accompanying fever; in nine the disease attacked puerperal women, and appeared to be associated with child-bed fever; and in the remaining ten cases, the patients appeared to sink under the violence of the eruptive fever. In all the other cases, the disease ran its course quickly and very mildly;—many of the patients remained almost quite free from fever. The desiccation was sometimes completed in two or three days; and when the crusts fell off, the skin was merely red and tender, but no scars were left behind. In estimating the mortality of the disease in the 200 vaccinated patients, we are to remember that in nine it was complicated with a puerperal affection. In the 533 cases of varicella, there were three deaths; and these occurred in puerperal women.

In conclusion, the reporter insists urgently on the great efficacy of vaccination in mitigating the severity of small-pox, and in checking its dissemination. No one can hesitate for a moment in admitting the truth of this statement, who has had an opportunity of witnessing any of the epidemics of variola, which have of late years prevailed on the Continent. The remark invariably made has been, that the disease has been comparatively mild and innocuous to those patients, who have been unquestionably vaccinated at some former period of their lives; but severe and very fatal to those, who have never undergone the operation. It is worthy of remark that, during the year 1835 in the Vienna Hospital, none of the medical attendants (they were all too wise to have neglected vaccination) exhibited any of the symtoms of the epidemic.—*Mediz. Jahrbuch des Oesterr. Staates.*

Case of most obstinate Sternutation cured by a Pinch of Snuff.

A girl 11 years of age was seized on the 18th of November with violent fits of sneezing, which returned so very frequently that there was not more than a quarter of an hour's intermission at a time for the following six weeks. Dr. B. visited her for the first time on the 8th day of January, when he found that the girl's general health was very good, except weak from the want of continuous sleep for so many weeks. She complained of a most intolerable tickling in the nostrils, but, upon examining them, nothing unusual was to be seen.

From this date to the 17th of March a host of remedies were tried without however any permanent relief to this most troublesome symptom. Vapour baths, mustard foot-baths, purgatives, anthelmintics, emetics, leeches to the epigastrium, (against the presumed gastrite,) sulphate of quinine, various forms of antispasmodics, &c. &c. were used in succession. The doctor then thought of the homoiopathic axiom, "similia similibus curantur," and advised his patient to try the effects of a pungent sort of snuff. Three pinches effected a cure!—*Bulletin Med. Belge.*

Remarks on certain Forms of partial Convulsions.

In 1831, M. Dance published in the Archives Generales a memoir entitled "Observations on an intermittent form of Tetanus." The singularity of the phenomena which he had observed in four cases, and the paroxysmal character of the partial cramps or convulsions, had arrested his attention, as indicating

a form of diseased action which, he believed, had been overlooked by preceding writers. He was somewhat puzzled to decide, in what point of light he should regard the affection, whether as of a rheumatic, tetanic, or of a purely agueish nature. "We may however," says he, "assert this much, that it has the strongest affinity to tetanus, if we look merely to its phenomena, and to intermittent or remittent fever, if reference be made to its course and progress."

In 1832, M. Tonnelle, ignorant apparently of the observations of M. Dance, communicated to the Gazette Medicale, an interesting paper "on a *new* convulsive disease of children."

Without alluding to the theoretical speculations of M. T. as to the origin of the disease which he has described, we may state that in none of the fatal cases which occurred in his practice, was he able to discover the slightest organic lesion in any part of the nervous system.

The attention of M. Guersent, physician of the Hospital of Sick Children at Paris, appears to have been excited by these memoirs of MM. Dance and Tonnelle; for, in the course of 1832, he also communicated his thoughts on the subject in the pages of the Gazette Medicale. Unfortunately he has associated together every varying form of convulsive contractions; such as those which characterise wry-neck, those which are of a genuine tetanic nature, and lastly, those which accompany meningo-encephalitis.

Dr. W. Murdoch, after having described (Journ. Hebdom.) the chief phenomena which characterise the "spasmodic muscular retractions," (so he calls the affection which we are at present considering,) thus expresses himself:—"We do not know if we can with propriety refer them to any lesion of the centre of innervation, or to a spasm altogether local of the muscular tissue—a spasm which may be compared to a prolonged cramp, or to a partial tetanic stiffness. They cannot well be likened to proper convulsions, because these latter are almost always accompanied with a functional, or pathological alteration in some part or another of the encephalon, nor to chorea, in which the muscular contractions are invariably of the clonic kind."

Dr. Murdoch is inclined to attribute many cases of wry-neck to this muscular affection; although, it must be acknowledged, that the spasm in wry-neck is always progressive and chronic, and the affection is very generally most obstinate of cure—two features, which do not belong to the disease under consideration.

Before entering on any general description of the disease, the narration of a few cases may be deemed useful.

A child, three years of age, of a very irritable constitution, had been affected for a short time with cough, diarrhœa, and evening feverishness, before he was admitted into the hospital. Soon after his admission, the general symptoms having not undergone any change, it was observed that the fingers and thumbs of both hands were affected with a remarkable rigidity: they were bent forcibly in upon the palms, remaining however fixedly separate from each other: the wrists also were bent on the forearms, and these again slightly on the arms. The feet and toes were affected in a similar manner: the gastrocnemii muscles were rigidly contracted, and had drawn the heels forcibly backwards; the toes were bent in upon the soles, and the feet, were directed inwards towards each other.

These novel symptoms had come on rather unobserved, and they did not seem to be associated with any aggravation of the constitutional disturbance. Some days afterwards, the little patient was seized with frequent vomitings; the muscles of the face became occasionally convulsed, and the extremities were affected with clonic convulsions. These symptoms gradually abated, but the tetanic contractions of the hands and feet remained as before: the general distress was unrelieved, the cough being still frequent, the breathing hurried, the pulse rapid, and the bowels relaxed. A few days subsequently, the local cramps ceased altogether, but the constitutional symptoms were decidedly aggravated, and the boy died convulsed

at the beginning of the fourth week after his admission. On dissection, there was found slight serous infiltration of the sub-arachnoid cellular tissue, great vascular congestion of the pia mater, and of the cerebral substance: no ramollissement. The spinal marrow and its investing membranes were nearly in the same condition as the contents of the cranium. The right lung exhibited some tuberculous spots, and patches also of lobular induration.

Remarks. The progress of this case is interesting. The cramps of the fingers and toes came on without any well-marked signs of encephalic disturbance, and to these symptoms were added afterwards clonic convulsions in different parts of the body. The clonic convulsions subsided, but the tonic spasms remained unabated; and then the latter also ceased spontaneously, although the constitutional symptoms became more aggravated. The clonic convulsions returned at intervals, without any renewal of the rigid cramps, before the death of the patient.

[We have no doubt in our own minds that the preceding case must be regarded as one of genuine hydrocephalus. The practitioner who has seen much of this most insidious and perplexing disease knows well that he is not to look for any uniformity of symptoms, or regularity in their succession. There is no malady which so vexatiously defies nosological definition or accurate description as hydrocephalus.—*Rev.*]

Case 2. A child, eighteen months old, had been suffering from cough, diarrhœa, and occasional attacks of clonic convulsions for five weeks, before it was received into the hospital on the 24th of April. At this period there was marked retraction of the flexors of the wrists and fingers of both hands, also of the gastrocnemii, and of the flexors of the toes, and serous infiltration around the wrist and ankle-joints: the pulse was very rapid, and the bowels very frequently relaxed.—"Gomme edulcorée, julep gommeux, cataplasme emollient sur le ventre, bain tiede, lait pour tout aliment," were prescribed. The cramps of the extremities were regarded as the effects of a lesion purely local (!) and on this idea frictions and fomentations were ordered for the limbs. The constitutional symptoms became more and more aggravated, and the child died in convulsions on the first of May. The rigidity of the flexed muscles continued "avec intensité" after death. On dissection the contents of the cranium were found almost quite normal; the tissue of the pia mater was very slightly infiltrated with serum; its vessels only moderately injected; and the ventricles contained a small quantity of limpid serum: the cerebral substance was perhaps rather firmer than usual. The thoracic organs were sound. The mucous coat of the intestinal canal was redder than usual here and there, and the glandulæ Peyeri were somewhat larger and more prominent.

This case affords a very striking example of well marked permanent contraction of the muscles of the fingers and toes without any appreciable lesion in the centres of innervation.

[The details of the case do not satisfy our minds.—*Rev.*]

Case 3. A boy, 13 years old, of a healthy constitution, and who had enjoyed good health, with the exception of occasional headaches, which generally relieved themselves by bleeding from the nose, began to experience, while engaged at his work of a type-founder, a sense of numbness in the fingers of both hands, and an involuntary and momentary flexion of both thumbs. These symptoms did not last above a few minutes, and then they ceased entirely: his general health at this time appeared to be quite good. Ten days after the date of their occurrence, he was admitted into the hospital with the following symptoms:—difficulty of deglutition, anorexia, sharp pains in the epigastrium, nausea and vomiting, constipation, cough, evening feverishness, general weakness and languor. He complained also of a numbness in the fingers of both hands, and a retraction of the anterior or flexor muscles of the forearm, which caused

a semi-bent position of the fingers and thumbs. There was no distinct symptom of encephalic disturbance. A few ounces of blood were taken by venæsection, but without any abatement of the general feverishness, and the contraction of the fingers had become more forcible, so that they now remained permanently bent in upon the palms, and the thumbs were strongly adducted upon the fingers. Sharp pain was caused by any attempt to overcome the flexion. The integuments of the hands and lower part of the forearms were red, and there was slight puffy swelling around the wrists. Dr. I. ordered "deux pots d'infusion de mauve edulcorée, un julep gommeux, un lavement emollient, un bain, et pour aliment un potage au lait." Very soon after leaving the bath, the fingers of the right hand could be readily extended, and the pulse, which had previously remained quickened, fell to 84. The same treatment was continued for a few days, and all the symptoms, general as well as local, vanished.

Case 4. A young man, 18 years of age, began to experience, three months before his admission into the hospital, a marked numbness in his fingers, retraction of the flexor muscles of the right hand, and a sense of restraint and difficulty in moving the forearm. Eight days subsequently, the same symptoms occurred on the left side. In the course, however, of two or three days, all these symptoms disappeared, and the young man was able to resume his occupations. They returned, however, with varying intensity, at intervals lasting usually for four or five days, and then ceasing altogether. He did not suffer from headach; but he felt occasionally a slight vertigo. When received into the hospital, the fingers of both hands were so forcibly bent upon the palms, that they could not be extended; the muscles of the forearms were permanently contracted, and formed a projecting mass on the anterior or volar surfaces, such as is felt on the calves of the legs, when affected with cramp.

He was bled, put upon a low diet, and ordered to have a warm bath. The antiphlogistic regimen was persevered in, and in the course of a week all the symptoms were quite subdued.

General Reflections. Dr. Berge, after reporting the preceding four cases, enters upon a critical analysis of the results which they, as well as the cases narrated by Dance, Tonnellé, and Murdoch seem to furnish. It appears from this analysis, that, in the majority of fatal cases in which the tetanic or tonic convulsions of the fingers and toes have been observed, no uniform or constant post-mortem appearances have been discovered in the brain or spinal marrow.

A morbid state of the intestinal mucous lining has been more frequently noticed; and our readers may have observed that, in three of the preceding cases, diarrhœa had preceded the occurrence of the spasms. The sympathy between the bowels and the muscular system is well exemplified in this, as well as in some other diseases, such as cholera, &c.

The occurrence of the spasms has been, in most cases, not quite sudden, but has usually been indicated by certain premonitory symptoms. There is usually, for some days or weeks previously, a feverish state of the system, announced by general weariness, oppression, and pains in all the limbs; the patient experiences, at first, a feeling of numbness, pricking, and tremulousness in the hands, arms, and feet; he cannot move them with ease; they feel stiff and uncomfortable, and often flying pains are felt in the whole extent of the extremities, along the lines of their principal nerves. The contraction of the flexor muscles gradually increases in force, until the fingers are immoveably bent in upon the palms, the thumbs strongly adducted towards the fingers, and the wrists bent upon the forearms.

The feet and legs are similarly affected in most cases; but the lower extremities are, we believe, seldom or never attacked before the upper ones. Sometimes this morbid state of muscular contraction extends to other parts, especially in adult subjects; thus the muscles of the lips, lower jaw, abdo-

men, and spine, are occasionally attacked. M. Dance observed, in one or two cases, a vibratory agitation of the muscular fasciculi of different muscles, occasioning a distressing pain in the parts affected. The integuments covering the joints were often red, and almost erysipelatous, and sometimes also œdematous —those of the wrists and ankles were most frequently affected in this manner. The tonic convulsions now described were, in many cases, accompanied with or followed by clonic convulsions of some muscles. In no case was strabismus, delirium, or coma observed. The fever which was generally present had the characters of the infantile remittent; the symptoms abating during the day, and becoming much aggravated towards evening. Sometimes it exhibited the form of an almost regular intermittent—so much so, that M. Dance was inclined to view the muscular affection as a form, hitherto unnoticed, of intermittent disease, and induced by miasmatic influence.

The duration of the contractions varied, from a few minutes to several hours, or even days in succession, with only occasional and partial relaxations. In our own experience (says Dr. B.), we have never observed any marked regularity in the return of the attacks. In one case, they continued to return at intervals of greater or shorter extent during a period of nearly four months. Out of twenty-two cases referred to by the author, death occurred in seven. The affection is, therefore, not of so slight a danger as some authors have been led to suppose.

It is generally symptomatic of some grave constitutional disturbance, and is very rarely, if ever, an essential or idiopathic disease. Either the brain, spine, or the intestines are, we suspect, the "fons et origo mali" in almost every case. When connected with encephalic disease, the occurrence of the muscular contractions is very generally preceded by pain in the head, confusion of mind, delirium, disturbance of vision, strabismus, irregularity of the pupil, paralysis, &c. M. Andral, in his Clinique Médicale, relates four cases of ramollissement of the brain, in which irregular contractions of certain sets of muscles formed one of the most prominent symptoms.

It is especially worthy of notice, that in cases of cerebral ramollissement, the convulsions are not unfrequently confined to one side of the body, whereas in other cases, unconnected with cerebral disease, such as have been described by MM. Dance, Tonnellé, and Murdoch, they affect both sides simultaneously; and it may be added, that paralysis is of much more frequent occurrence under the former than under the latter circumstances. In addition to these points of difference, we may likewise remark that, when the brain or the spine are diseased, it is not frequent that the muscles of the extremities only are affected; the sphincters of the rectum and bladder usually are relaxed, or at least act irregularly at the same time; and the respiration also is almost always more or less disturbed.

When every symptom of cerebral or spinal disease is absent, in cases of morbid muscular contractions, we have strong reasons for suspecting that abdominal irritation is the source of the mischief. Dentition also, in young subjects, is a not unfrequently exciting cause. In reference to the age at which the disease has been observed to occur most frequently, Dr. B. states that, of 22 cases, the particulars of which he has collected, nine occurred in children below five years, five between the fifth and the fifteenth years, and eight in persons above fifteen years.

In conclusion, he enumerates the following characteristic features of the disease—its invading the upper and lower extremities alike, and of both sides of the body at the same time; its attacking the fingers and toes first, and then extending upwards in its progress to the forearms and legs, and to the arms and thighs; the occasional, nay, rather frequent absence of all cerebral or spinal distress; and, lastly, its short duration and inconsiderable danger in the majority of cases.—*Journal Hebdomadaire.*

Remarks.—It is to be regretted that Dr. Berge has not better arranged and

elucidated his sentiments on the form of convulsion which he has described in the preceding remarks. After making one extract from the writings of M. Andral, we shall avail ourselves of some remarks of Dr. Constant, published in a recent number of the Bulletin Génerale de Therapeutique.

M. Andral, in his recent course of lectures on the diseases of the nervous system, makes the following remarks on muscular contractions or tonic spasms, as one of the signs of cerebral congestion:—"This sign, consisting in the permanent flexion of the joints—the flexion being in some cases so powerful, that it cannot be overcome by even very strong force—is characteristic of the disease which we are at present considering. These contractions, less constant, and also less decided in the first stage of inflammation, are strong and constant when ramollissement has taken place:" and, in his description of the symptoms of inflammation of the spinal marrow (myelite), he remarks—"In some cases, muscular contractions or spasms form one of its prominent symptoms. The seat of these varies according to the portion of the marrow affected. When they attack the abdominal muscles, they occasion excruciating pain, and often all the symptoms of the most intense colic. Sometimes the cramps affect the muscles of the extremities only; and these, indeed, are not unfrequently the earliest symptoms observed in some obscurely-marked and inactive cases of the disease, while in other cases, the muscular convulsions have a much more acute character, and simulate very strongly those of chorea, or, as happens in the most aggravated cases, of genuine tetanus. In this last form of the disease, death is almost inevitable."

Dr. Constant thus defines the "maladie convulsive, peu connue et assez commune"—the same, no doubt, as that alluded to by Dr. Berge: "a permanent and involuntary contraction of the muscles of the upper and lower extremities, occasioning a remarkable rigidity of these members, and accompanied or not with pain." The upper and lower extremities are usually affected at the same time; sometimes, however, the disease is limited to the one or to the other. When the upper extremities are affected, the muscles of the forearms become exceedingly tense, and very prominent; the wrists are bent; the fingers are stiff, separated from each other, and inclined to the palms. All movement of these parts is utterly impracticable. The shoulder usually retains its mobility. When the disease affects the lower extremities, the ankle-joints are not, like the wrists, bent upon the legs, but powerfully and painfully extended, while the toes are strongly flexed upon the soles. Sometimes the muscles of the thighs also suffer. In one case seen by Dr. Constant, the adductor muscles were so predominant, that the limbs were immoveably crossed, the one upon the other. While the muscular system is so seriously affected, the mental and sensorial functions remain untouched; the pulse is but little affected, except when the pains are severe. It is rare that the muscles of any other parts than the extremities are affected with spasm.

The duration of this convulsive disease varies from a few hours to several days, weeks, or even months. Sometimes it is continuous—at other times it is intermittent. Occasionally it alternates with regularly clonic convulsions; and in several cases it has seemed to cease spontaneously. Twice have we seen it cease on the appearance of the catamenial discharge, and twice on the eruption of measles. When uncomplicated with cerebral disease, it seldom proves fatal. Dissection has hitherto failed in detecting any uniform organic cause of the disease.

The first case, related by Dr. C. occurred in a child a year and a half old, who had never well recovered from the measles. The spasms of the upper and lower extremities came on very suddenly, and was no doubt attended with great pain, as the child kept incessantly crying. It seemed, however, to be quite sensible. It died in the course of ten hours. On dissection, no distinct traces of disease were found in any part of the nervous system. The pleura and lungs were inflamed in this, and also in other

three similar cases. "Dans tous les cas," adds the author, "les centres nerveux et leurs annexes ont été trouvés exempts d'alteration."

In the second case, the spasms of the extremities supervened on an obstinate diarrhœa. The spasms lasted, with only partial relaxation occurring occasionally, for nearly three weeks before death. An attack of general convulsions preceded the fatal event.

The only morbid appearances found on dissection in the encephalon was a trifling serous exudation under the arachnoid coat: the cerebral substance was pale, but its consistence was normal.

In some cases teething appears to have some influence in inducing this spasmodic affection. Worms also, and indeed any irritation of the intestinal tube (as existed in the last case, and such as is present in all severe cases of cholera), may bring it on.

In more advanced years the changes which accompany the development of the sexual organs, the first appearance of menstruation, sudden mental emotions, &c. are occasionally accompanied or followed by a spasmodic affection of the extremities. When the disease is associated with febrile irritation, and with any disturbance of the mental and sensorial functions, we have reason to suspect cerebral disease; especially ramollissement of the brain.

The treatment of this convulsive affection must be modified by a variety of circumstances; such as its probable primary cause; the age of the patient; the existence of previous disease, &c. When there are no symptoms of cerebral disease present, warm-baths, purgatives, carminatives, antispasmodics, and the use of external irritants to some part or another of the spine will be found to be the most efficacious remedies. The state of the bowels ought to be in all cases minutely examined and attended to. Sometimes the spasmodic affection appears to be induced, or at least to be much promoted by a low and exhausted state of the system, giving rise to an inordinate irritability of the nerves. Warm aperients, sedatives, tonics, and a generous light diet, will be proper under these circumstances."

We deem it worthy of mention here that the treatment which in very numerous cases of partial, as well as of general convulsions occurring in children has been successfully pursued by us, consists in the use of a few very simple remedies.

The practitioner must first of all endeavour to ascertain whether the convulsions proceed from organic cerebral mischief, or from mere irritation in the head, teeth, bowels or kidneys. The state of all these parts is therefore to be sedulously examined. If there are any convulsive movements of the eyeballs, if the pupils are permanently contracted or dilated, if there is any difficulty in swallowing, if the pulse be very rapid, and if there is a tendency to stupor and oppression, there is much reason to suspect an unfavorable termination of the case from cerebral disease. On the other hand, if the attacks of convulsion are succeeded by intervals of almost complete ease and repose, if the child screams repeatedly and grinds its gums, if these feel to the finger hot, swollen and tense, we should not for a moment hesitate to relieve them by a free use of the scarificator, and to induce a derivation from the encephalon by means of active diuretic purges.

When irritation of the bowels or kidneys is the exciting cause of convulsions, the attention of the enquiring physician is usually excited, by discovering that the little patient is every now and then seized with attacks of pain, aggravated before and during the urinary or alvine evacuations; that the physical qualities of these evacuations are not healthy; that the abdominal muscles are every now and then contracted and drawn into lumps, and that the symptoms, which we have described as peculiarly indicative of cerebral and of dental disturbance, are absent or only indistinctly present.

A dose or two of calomel with carbonate of soda, followed by the free use of the infusum sennæ combined with manna and tartrate of soda, and by the exhibition of a senna enema (never to be neglected) will very generally afford quick and decided relief.

In cases of more chronic convulsion, when the origin of the disease is ob-

scure, and the leading functions of the system do not appear to be very obviously disturbed, we have derived great advantage in numerous cases from a steady use of the following treatment. A powder consisting of hydrargyrum c̄ creta, pulv. rhei and sodæ carbonas, is to be given every evening; and during the day, small doses of liquor potassæ and vinum ipecacuan in any distilled aromatic water. In some cases, a small blister behind one of the ears, or the friction of antimonial ointment on the nape of the neck, may be beneficially employed. The use of purgative enemata every second or third day ought never to be omitted. They are among the most direct derivatives in all cephalic diseases. The great and leading principle to guide us in all cases, is to bring and keep the alvine and urinary secretions in a healthy state, and to relieve any local irritation.

It is not by following any one exclusive mode of treatment, or the directions of any one teacher, that we can succeed in rightly understanding and in successfully opposing so Protean a disease as convulsions. A sedulous enquiry, minute examination, a quick and unprejudiced observation, and a simple and decided mode of treatment—these are the necessary implements for the practical physician.—*Rev.*

SEVERE SYMPOMS FROM THE BITE OF A SPIDER.

A young girl, gleaning in the fields, was bit above the left bosom by a large dark-coloured spider. She felt a sharp pain in the part at the time; and in the course of a few minutes she became so weak that her limbs sunk under her, and her sufferings were so great that she rolled about on the ground, and could not refrain from screaming out. When Dr. Hameau visited her in about an hour after the accident, he found her drenched with perspiration; her face alternately pale and flushed, her extremities cold, the breathing slow and oppressed, and the pulse irregular and very small. She complained of severe pains in the feet, knees, thighs, and in the small of the back; and as these subsided, they fixed themselves in the epigastric region, causing a sense of most distressing oppression and anxiety. The muscles in several parts of the body were in a state of continual oscillation, or tremor: firm compression of the limbs afforded considerable relief to this symptom. The seat of the bite was red and swollen, and a small vesicle filled with a yellowish serum occupied its centre.

Dr. H. opened this vesicle and moistened the part with some fluid ammonia, and ordered the patient to have a warm-bath and a powerful opiate. The symptoms however were not relieved, until three doses of opium had been exhibited. The pains then abated and a general reaction came on. Towards evening however, the symptoms were partially renewed, and three grains more of opium were given. No narcotism was induced. On the following day, the patient was altogether much better. Some degree of salivation, and also a papular eruption made their appearance; but these symptoms quickly ceased, and the girl was soon quite well.

Remarks. It is probable that the bites of all spiders are more or less poisonous. That they kill their prey by inserting a poison into the wound which they inflict, is generally admitted.

Whether the spider in the preceding case was of the tarantula tribe of araneæ we cannot determine, in consequence of the want of any accurate description of its appearance. This spider, the most formidable of its genus, is occasionally met with in the South of France, but much more frequently in Italy and some other warmer regions. No doubt many of the tales of tarantulism,—characterised, we are told, by an irrestrainable propensity to dancing—are fabulous, or at least much exaggerated; but that the bite of some of the larger spiders may induce certain spasmodic, or convulsive symptoms, like those of chorea, is far from being improbable.

Travellers tell us of spiders in the

hot climates, as in Guinea, Cape of Good Hope, Madagascar, Ceylon, &c. whose bites have proved fatal. We cannot vouch for the correctness of these reports.—*Bulletin Medicale de Bordeaux.*

Poisoning from a Viper-bite—Cure with Sulphate of Quinine.

A countyman, 44 years of age, was bit by a viper between the fore-finger and thumb of the right hand. On the following day, when admitted into the hospital, the whole extent of the right arm was enormously swollen, and its surface was of a livid red colour. The face and trunk had a jaundiced hue, and the extremities exhibited diffused patches of redness. There was great prostration of all the vital powers; the pulse was scarcely perceptible; the body was bedewed with a cold clammy sweat; the face was convulsed, the pupils dilated, the breathing laborious, and there were frequent efforts of vomiting. Dr. Butazzi, calling to mind the results of some cases recently published in the Filiatre and in the Révue Med., prescribed quinine in large doses, three grains to be taken in a spoonful of wine every hour.

On the following day, the arm remained as much swollen as before, the pulse was scarcely to be felt, and the patient complained of pain in every part of his frame: the dose of the quinine was increased to four grains. On the next day, there was a decided amendment; a copious warm perspiration had taken place, the discoloration of the surface abated, and the features were recovering the character of health. The swelling of the affected arm gradually from this time subsided, and, under the use of oily embrocations, altogether disappeared. Two drachms in all of the quinine were taken in the course of between two and three days.—*Filiatre di Napoli.*

Remarks on the Frequency of Gangrene of the Lungs in the Insane. By M. Guislain.

Laennec mentions that he had not met with more than six or eight cases of genuine gangrene of the lungs in the whole course of his practice. It was in the year 1824, when dissecting the body of an insane patient, that I first observed a peculiar degeneration of the lungs, which I have subsequently had numerous opportunities of observing. That there is a certain sympathy or alliance between mental disorders, and the diseases of the respiratory organs, was noticed long ago by Mead; and the truth of the remark has been confirmed by the researches of Esquirol and others. But I am not aware that any writer, with the exception, perhaps of M. Calmeil (who, in an article in the Dictionnaire de Medécine, has alluded to having witnessed two cases), has pointed out the not unfrequent occurrence of gangrene of the lungs in the bodies of lunatic patients. All that relates to the symptoms, and more especially the causes of this disease, are involved in much obscurity. Laennec was of opinion, that gangrene of the pulmonary texture is very generally attributable to some specific or essential influences, similar perhaps to what occasion carbuncle and pustula maligna, and that rarely indeed is it ever owing to a preceding inflammatory action. Our own experience agrees so far with this statement of M. Laennec, that we fully believe that pulmonary gangrene, occurring in the insane, may be usually traced to a depravation of the blood and other fluids of the body, induced by some disorder of the digestive and assimilative functions. It is well known that some lunatics will refuse for a great length of time to eat any food, or that they will devour the most unwholesome and indigestible articles. We need not, therefore, wonder, that a humoral dyscracy is induced; but why, in this state, the lungs should more especially be affected, it is not easy to discover.

In the first case which fell under my notice, my attention was drawn to the

state of the lungs by the unusual offensive smell which was given out when the thorax was opened.

Soon after the occurrence of this case, I met with a patient, whose breath emitted a similar odour; and in whom I predicted that the lungs had become gangrenous. My prediction was verified on dissection of the body; the lungs were quite sphacelated. It ought to be mentioned that the patient had, for a length of time, refused to take any description of food. From this period, I was led to believe that there was some relation, perhaps of cause and effect, between the lesion of the digestive functions on the one hand, and the decomposition of the pulmonary tissue, and the offensive state of the breath, on the other.

The mere mephitism of the inspired air is not, however, an unequivocal sign of pulmonary gangrene; for this phenomenon is often observed, to a marked degree, in cases of protracted abstinence, and also, it is well known, in suppuration of the lungs; but the odour of gangrenous degeneration is certainly peculiar and characteristic. The refusal of food, which I take to be in most cases the remote or inducing cause of pulmonary gangrene, is not an unfrequent symptom of melancholia. This morbid symptom occurs, to a greater or less extent, in almost one-ninth of the entire number of lunatics. Often no means of persuasion will succeed in overcoming the patient's aversion from all food. They will live for twenty, thirty, nay even for sixty days, without any food, except only cold water for drink. Some lunatics will refuse food for some days of the week, and, on the other days, they will willingly eat whatever is given them; in others, the degree of aversion is proportional to the disturbance of the mental energies.

It has been supposed that this unnatural abstinence must be always the result either of some hallucination or delusion of the mind, leading the poor patient to suppose that his food has been poisoned, or of a preconcerted design to put an end to his existence. These influences may operate in some cases, but certainly they do not in all; and we are quite satisfied that the repugnance against all sustenance often arises from a strange perversion of the will, over which the patient has no control, and of which he has no consciousness. Hitherto, we have not observed any facts which might lead us to suppose that this extreme anorexia is ever occasioned by any primary or idiopathic malady of the digestive apparatus.

It is almost unnecessary to state, that a protracted abstinence from nourishment must induce an unhealthy state of the animal fluids. It is to this humoral irregularity, or dyscrasy, that we attribute, as already noticed, the occurrence of pulmonary gangrene in the insane. In periods of religious fastings, some persons, who are rigid in the observance of these, are always more or less affected with cough, and an affection of the breathing. I have for some years past been in the habit of attending many of the members of a sect, which is unusually austere in all its penances. Animal food is interdicted among them, and every now and then a rigid fast is exacted. Often have I had occasion to observe troublesome coughs, dyspnœa, and even hæmoptysis, induced in the more delicate of these devotees. Fortunately, in most cases, the troublesome symptoms were readily curable by the use of a generous diet, and of tonic medicines.

Diseases of the chest are frequent in prisons, workhouses, and other establishments, where the diet is poor and insufficient. It is to the long privation of nutritious food, coupled indeed with the large sanguineous depletions, that we may often trace the teasing cough which occurs during the convalescence from acute diseases, and which is best remedied by a cautious administration of a generous diet. Over-prolonged suckling, masturbation, and, indeed, whatever induces or is accompanied by systemic weakness, such as rapid growth at the period of puberty, will often induce symptoms of pulmonary disturbance.

From all these considerations, I infer that protracted abstinence, such as we sometimes meet with in lunatics, must necessarily have a directly hurtful effect

on the respiratory organs. I shall now adduce a few illustrative examples.

Case 1. A middle-aged female was so alarmed during "nos derniers commotions politiques," that she lost her reason almost completely. For several successive days she refused all food. Her physician prescribed the repeated application of leeches to the epigastrium. Her friends, being alarmed at her weakness, emaciation, and mental derangement, had her conveyed to our establishment in February, 1831. The only food which she had taken during the previous four weeks was "soupe au lait" and "bouillon leger," in small quantities. Although emaciated, and exhibiting all the appearances of a humoral cachexia, she still retained considerable strength, so as to resist all attempts to make her eat. Her breath began to emit a most offensive odour; the sputa were of a brown rusty colour, in large quantities, and apparently sanious. She died in a state of extreme emaciation.

On dissection, the encephalic and abdominal viscera were free from any obvious alteration of structure. The thorax being opened, the lungs were found to be so soft and friable, that, in attempting merely to raise the left lobes, my fingers sunk into their substance. The stench was so intolerable, that I was obliged to desist from the examination for a short time. When the lung was removed from the thorax, the posterior surface of its upper lobe was discovered to be almost black, and spotted over with greenish and brown patches. On cutting into its substance, the pulmonary tissue was seen in a state of gangrenous decomposition; a dark-coloured offensive sanies, mixed with flocculi of pus, flowed out, and on scraping the lung with the scalpel, the blade was covered with a putrid brownish matter. Nearly one-half of the left lung was in the diseased state now described. The bronchi were filled with a frothy, reddish, fetid mucus. The right lung was not much affected.

It is almost unnecessary to narrate the particulars of the other cases which I have met with. I shall, therefore, merely mention the more important phenomena which they presented. Out of thirteen insane patients who died from inanition, in nine were the lungs found to be gangrenous. It is to be observed, however, that in no case were the two lungs seriously affected at the same time; the lung of one side was invariably more affected than that of the other. In seven of the nine cases, the disease was confined, or nearly so, to the left lung. M. Calmeil, in speaking of the pulmonary diseases to which lunatics are subject, has remarked that the left lung is much more frequently diseased than the right one. The degenerated portion is always circumscribed, never exceeding a fourth or fifth part of the entire lung, of a dark colour, soft and pasty to the touch, and insufferably stinking when lacerated or divided. In three of the remaining four cases, the lung did not exhibit any decided alteration of texture; only its colour was much deeper than usual. In the other case, there was found a sanguineous engorgement or ecchymosis on the posterior surface of the lung.

The gangrenous affection was in all the cases more conspicuous towards the apex, than towards the base of the organ; and in all, with the exception of one only, was it situated in its posterior part.

In almost every case, purulent flocculi were found in different parts of the diseased mass; but the quantity of pus was too small, for any one to suppose that it was owing to a previous inflammatory action; and, moreover, the gangrenous portion of the lung did not exhibit any appearances of having been so affected. The pulmonic texture immediately surrounding the gangrenous part was dark, and looked as if it was ecchymosed.

In all the cases, the patients did not seem to suffer any pain in the chest; there was little or no cough, nor dyspnœa; the system was not feverish, and the pulse was sometimes slower and more oppressed than it had been before. In M. Andral's work on the Diseases of the Encephalon, there is an instructive example of gangrene of the lungs, occurring in a starved woman, recorded.

The poor wretch was admitted into La Charité in the most emaciated condition. She did not, however, suffer from cough, nor from difficulty of breathing, although a portion of the right lung, towards its summit, was found on dissection to be as black as ink, and to be converted into a "putrilage," which emitted an intolerable stench when exposed. There was an organic disease of the brain.

In all the cases of inanition occurring in insane patients, which have occurred in the practice of Dr. Guislain, there was a peculiar and a very characteristic discoloration of the skin during life. This discoloration is usually observed on the face—at first of a reddish or brick hue, and gradually becoming more and more brown or purplish. The eyes are surrounded with brown areolæ; the apex of the nose and lips are livid, and the whole complexion is a blueish earthy hue. A criminal, who recently starved himself to death, presented, in a very marked degree, a cyanotic discoloration of the whole surface of the the body. It is probable that it is owing to the altered condition of the blood, induced by the defective supply of chyle.

It is not easy to determine the reason why the lungs are more subject to a gangrenous affection under these circumstances than any of the other viscera. The lungs, it may be worth noticing, are the important organs of sanguification; but, whether this consideration can lead to any rational conjecture as to the cause of the gangrene, is indeed very doubtful. We have already alluded to the great frequency of pulmonic diseases in insane persons. According to the report of M. Georget, more than one-half of the inmates of the Salpetrière die from diseases of the chest. Many suffer from asthma, chronic catarrh, latent inflammatory attacks, terminating in suppuration, &c.; but these affections are very different from the gangrenous affection described above. They are accompanied with symptoms, more or less obvious and well-marked, of respiratory distress; there is cough, shortness of the breath, hectic fever, night sweats; and, on dissection, we find adhesions of the pleuræ, portions of the lungs hepatized, or infiltrated with purulent matter, &c.

But, in the spontaneous gangrene of the lungs, the symptoms during life are much more obscure. The breath certainly has sometimes a truly putrid smell, and the peculiar wasting of the entire frame, and the discoloration of the surface, are very generally, nay always present. Cases, however, occur, in which the disease has not been even suspected, but where a considerable portion of the lungs is found, after death, in a state of thorough gangrenous decomposition.

In none of the cases examined by Dr. G. did the stomach exhibit any signs of inflammation, or other morbid action. This feature of the disease deserves notice, as suggesting a difference between the physical effects of *voluntary* and of *involuntary* inanition. The experiments and observations of Haller, Magendie, and others, satisfactorily demonstrate that protracted hunger, in man and in the lower animals, always induces some lesion of the stomach, which is discoverable on post-mortem examination, as inflammatory congestion, and even erosion of its mucous coat. Not so, however, with lunatics, who perish from an involuntary inanition. That they experience no cravings of hunger, is proved by the statements of those who fortunately recover from this sito-phobia. They feel no pain in the epigastrium, nor thirst, nor is there any reaction of the sanguiferous system, indicated by a frequency of the pulse and heat of the skin, as is usually observed in cases of voluntary protracted fasting. The loss of strength, too, is never so speedy, nor so apparent, as when the person suffers from hunger. In some of the patients whom Dr. Guislain examined, the corporeal energies were retained in a remarkable degree, even after fasting had continued for several successive weeks; whereas the deprivation of food from a sane person generally proves fatal in from eight to fifteen days.

The miserable sensation of continued hunger is always followed by a febrile irritation of the whole system, which

accelerates the approach of death. Dr. G. is inclined to suppose that in some cases, at least, of the aversion to food in lunatics, not only is the sense of hunger quite extinguished, but that even the stomach loses its power of digestion; for he has observed that when food has been swallowed, it has either remained quite unchanged, or it has undergone a decomposition which was evidently the result of mere decay, or putrefaction.

The etiology of that singular complication of diseases—the entire loss of appetite for food, and the gangrenous affection of the lungs—is ingeniously explained by Dr. G. in the following manner.

He supposes that it proceeds from a peculiar apathetic state of the nervi vagi—those nerves on which the sensation of the "besoin de respirer," and of hunger more immediately depend. That the nerves of general or common sensibility are often extraordinarily torpid in insanity is well known to every one, and is amply demonstrated by the insusceptibility of the lunatic to the impressions of cold, heat and pain. To an analogous state of the nervi vagi we may with some probability attribute the absence of hunger, of all gastric irritation, of cough and of any pulmonic distress, which so signally characterise the disease which we have been considering.

It is an admitted fact in pathology, that when the nerves of any part are affected with torpor, there is a tendency to sanguineous congestion in it. We believe that the gangrene of the lungs, such as we have described, is always preceded by an accumulation in and partial obstruction of the blood through the pulmonic texture.

The beautiful experiments of Dr. Brachet have thrown considerable light on this topic, and we are of opinion that the observations which we have made in some of our cases tend to illustrate and confirm the correctness of his speculations on the functions of the nervi vagi. According to Brachet they are not only the conductors of the sensation of hunger, but they also convey to the brain the feeling of repletion of the stomach. The contractile powers of the stomach depend on these nerves, while the ganglionic nerves preside over the functions of the exhalation and secretion of the gastric juices. It is the eighth cerebral nerves which, independently of the "besoin de respirer," communicate to the brain the sense of uneasiness which is occasioned by the lodgment of mucus or of other matters in the air-passages; and it is by virtue of its energies that expectoration or vomiting is indueed to remove the offending cause. Whether the nervi vagi exercise any direct influence on the actions of the heart is doubtful; some suppose that they do, while others account for any such *apparent* influence, by attributing it to the co-existent disturbance of the respiratory organs.—*Gazette Medicale.*

Injections of Gaseous Chlorine in Hydrocele — Treatment of Chilblains.

We are informed that Dr. Deblois of Tournay has treated successfully a great many cases of hydrocele, by using chlorine as an injection into the vaginal sac in lieu of wine, or other stimulating fluids. We are not aware that any trial of this remedy has been made in this country, and as we are told that it has answered admirably well in the practice of Dr. D. it may deserve to be introduced to the notice of the English surgeons. The gas is to be permitted to remain for two or three minutes in the sac; and if sufficient irritation is not induced by the first dose, a second or third insufflation is to be practised. One advantage which it is said to have over the injections in ordinary use is, that the gas penetrates into the sac more uniformly, and irritates equally every part with which it comes in contact. The narrator recommends the use of these gaseous injections in that form of goitre, which has of late years been called hydrocele of the neck.

In concluding his remarks on chlorine, he praises in high terms a lotion composed of one part of liquid chloride

of lime and five of water as a very effectual remedy against chilblains, whether they are ulcerated or not. The affected part is to be kept constantly wetted with the lotion.—*Bulletin Med. Belg.*

CURE OF AN OBSTINATE OZŒNA.

A girl, 16 years of age, of a marked scrofulous constitution, and who was very subject to impetiginous eruptions, had laboured under a most offensive ozœna for upwards of four years. It had come on originally without any appreciable cause, and had been subjected to various modes of treatment. Leeches, poultices, local vapour-baths, sulphureous as well as simple, blisters to the neck, frictions with mercurial ointment, injections of various substances, more particularly of the chlorides, had been tried successively, without however affording any decided relief.

A very eminent surgeon, consulted in 1834, recommended the application of blisters to the nape of the neck, the frequent insufflation of a powder consisting of equal parts of calomel and of pulverised gum arabic, and the injection of a lotion containing the oxymuriate of mercury and opium in solution. The use of these remedies had been persevered in for upwards of four months with only a temporary benefit. When she consulted Dr. D. in November 1834, the following is the report of her case. The nose, and more particularly the left ala, was red, inflamed, and immensely swollen; the edges of the nostrils were excoriated and painful. The patient complained of an intolerable itching in both nostrils, and a sense of tension over the frontal sinuses. There was a constant discharge of horribly offensive mucus from both nostrils. Six leeches were applied over the root of the nose and the frontal sinuses, and the use of a mild vegetable regimen recommended.

The irritation having abated, a course of iodine was commenced and continued for four months. This however failing, Dr. D. says he was not a little puzzled what to suggest. Fortunately he thought of inserting a seton in the nape of the neck. No sooner had it begun to discharge than the condition of the nose evidently mended, and in the course of a month, the running from the nostrils, and the tension of the forehead had almost quite subsided.

The seton was kept open for other five weeks, and the cure of the ozœna was complete and permanent.—*Ibid.*

There is a long article in one of the recent French journals on ozœna, or "punaisie," as it is called, recommending strongly the direct application of the nitrate of silver as the most effectual remedy.

No doubt it is a useful application; but we are convinced that most cases of this disease are connected with a depraved state of the general health, and that it is only by ameliorating this, that we can hope to cure obstinate ozœnas. The internal exhibition of the muriate of mercury, and of the hydriodate of potass, have had a marked beneficial effect in some instances, where venereal taint was not suspected. —*Rev.*

ON THE COINCIDENCE OF ENDOCARDITIS AND OF PERICARDITIS WITH ACUTE RHEUMATISM.

Professor Bouillaud informs us that, during the last three years and a half, his attention has been directed in an especial manner to the examination of this most important pathological position, that in nearly one-half of the patients suffering from acute rheumatism whom he has attended, inflammation of the sero-fibrous tissues of the heart was discoverable.

He has been led to this discovery (for like most of his countrymen he *re-discovers* many a well-known fact) by ausculting the sounds of the heart in every case of acute rheumatism under his care, and finding that in a majority of these the abnormal blowing, rasping or sawing sounds were as distinctly audible as in most instances of old organic disease of the heart, although the

patients had never suffered from any cardiac distress previous to the invasion of their rheumatic attack.

From a most extensive experience he is now quite convinced that an acute affection of the heart in cases of active pyrexial rheumatism is to be regarded not as a mere accident, or a rare and fortuitous complication, but as one of the most frequent accompaniments of the disease. Many of our medical brethren have, he says, reproached us with exaggeration on this point, and they have most discourteously alleged that either we have often *imagined* the existence of pericarditis and endocarditis, when no such lesions existed, or that the great frequency of these cardiac affections in our practice of late must be attributable in a great degree to what has been denominated a "medical constitution of the atmosphere."

Professor Chomel has in the last resumé of his clinique adduced 49 accurately observed cases of acute rheumatism, where no cardiac complication was, he says, discoverable. Now these very cases seem to have occurred to him at the very time, when many of our's were under treatment; and the difference alluded to between these two sets of patients must therefore be attributable less to any difference in the medical constitution of the season, than to a difference in the diagnostic abilities of M. Chomel and of myself. We have made a point of examining attentively the chests of all our patients; M. Chomel and others have probably neglected to do so:—"pour trouver il faut chercher, et chercher avec un grand soin." The existence of pericarditis in a rheumatic patient is announced by the following symptoms: dulness on percussion of the precordial region over a greater extent than in health, a certain degree of fulness or swelling there, the pulsations of the heart being less distinctly felt by the hand, the sounds on auscultation being obscure, more distant, as it were, from the ear of the observer, and also being accompanied with various abnormal bruits, some of which depend on the friction between the two opposed surfaces of the pericardium, and others on the complication of endocarditis with pericarditis. Pain more or less acute over the heart, palpitations and irregularities of the pulse are in many cases associated with the preceding symptoms. The abnormal bruits accompanying the double action of the heart, and the irregularities of the pulse, accompanied frequently with a "fremissemént vibratoire," are more decidedly marked in endocarditis, than in common pericarditis, while the increased extent of the dulness in percussion, and the more or less prominent swelling of the precordial region are more conspicuous in the latter than in the former affection.

Some writers have objected to the doctrine of the frequent co-existence of cardiac inflammation with acute rheumatism, on the ground that the former disease is of grave and most dangerous import, whereas acute rheumatism very rarely indeed terminates fatally. But the data for this reasoning are far from being quite correct. Louis among others has shewn that the danger of pericarditis has been greatly exaggerated, and the error on this point is no doubt attributable to the disease having been very often overlooked, when the patients recovered. This doctrine is amply confirmed by the results of our own experience.

During the last clinical course numerous cases of acute pyrexial rheumatism were treated at La Charité, and the data which they afforded have most undeniably proved that "in a large majority of cases of 'rheumatisme articulaire aigu *generalisé*,' the coincidence of a cardiac affection was the rule, and the non-coincidence was the exception." Such being the case, it is scarcely necessary to enter on the consideration of the appropriate treatment of acute rheumatism. Large and repeated bloodlettings, the application of leeches or of the cupping-glasses, the internal use of calomel with opium, of colchicum, &c. are the only safe and efficacious remedies.—*Journ. Hebdom.*

Our readers will find similar views professed and explained in the review of Bouillaud on Diseases of the Heart, published in the last number but one of this Journal.—*Rev.*

CASES OF GLANDERS IN THE HUMAN SUBJECT.

An ostler in the royal stables at Berlin, a healthy robust man, was seized on the 4th of October with attacks of shivering, and with general indisposition. He continued however to attend to his work until the 9th, on which day he suffered so much from severe pains in his back and limbs, that he could not leave his bed. On the following day he complained of pains through the chest, difficulty of breathing and cough; and these symptoms were accompanied with considerable febrile irritation. The thoracic symptoms were relieved by the adoption of antiphlogistic remedies, but the fever was unabated, and the patient's strength was becoming more and more impaired. He was admitted into the hospital on the 18th of the month. The prominent symptoms were severe pains in the left thigh and leg, (the inner surface of which exhibited patches of erysipelatous inflammation), and also in both upper extremities, along the back, and in the parietes of the thorax. The pulse was rapid, full and soft, the tongue was not much furred, but the appetite was quite deficient. As the disease resembled a rheumatic fever, the treatment consisted in the use of warm baths, saline diaphoretics, and of a blister applied to the chest.

In the course of the following night, the patient became delirious, and the pulse was small and feeble. Leeches and cold lotions were applied to the head; but without mitigating the symptoms.

On the 21st numerous boils, and dark coloured inflamed patches were observed on different parts of the surface. The largest of these was situated on the right cheek; it was nearly three inches long, and its appearance indicated a tendency to gangrenous changes. The patient lay quiet, oppressed, but not insensible; his pulse was very rapid, small and weak, and the skin was bedewed with copious perspiration. On the following day, a fresh crop of boils appeared, and the patient was repeatedly delirious.

On the 23rd the stupor was more decided; the pulse was more rapid than ever; the breathing was much distressed; and, as the fatal event approached, subsultus tendinum, and convulsions alternated with a state of profound coma.

Dissection. A distinct fluctuation was perceptible in many of the boils, and in the intervals between some of these were observed numerous insulated pustules, not unlike to those produced by the vaccine virus, filled with a yellow matter. An incision into the inflamed spot on the inner surface of the left leg opened a considerable sized abscess, which contained five or six ounces of unhealthy pus. The examination of the boils proved that they were genuine abscesses, which had their seat in the substance of the muscles. The texture of both lungs towards their apices was softened. On the inner surface of the lower lobe of the right lung was found an abscess, which corresponded with, (uebereinstimmte) with an exterior one situated in the intercostal muscles. The head was not examined.

(It is much to be regretted that the details of this dissection are so scanty and badly reported.)

Case 2. A man, 49 years of age, having had the charge of some glandered horses, became affected with shiverings, sense of confusion in the head, loss of appetite, dragging pains in the back and limbs, and universal debility. These symptoms had continued for several days, before an erysipelatous inflammation made its appearance on the inner side of the right calf, which was hot, swollen and painful. The pulse was frequent and soft; the respiration was considerably hurried; and the thirst was very urgent. In the course of the night, the patient was delirious for several hours. On the following day, numerous boils appeared on both upper extremities, and also on the thorax. (Infus. rad. angelicæ cum tinct. valerian æthereâ). The patient died comatose.

Dissection. The boils were found to be genuine abscesses, seated in the muscular substance. An incision into the

inflamed spot on the right leg discovered a large purulent sac, which contained upwards of six ounces of offensive unhealthy matter.

On opening the cranium, a lymphatic exsudation between the pia mater and the arachnoid membrane was observed; a considerable quantity of serum was in the lateral ventricles; and the veins of the cerebral substance were congested with dark blood. In several spots on the anterior surface of the lungs were observed numerous pustules, similar in appearance to those on the skin. In the pulmonary parenchyma there were several indurated and knotty inflamed points; but no traces of pus were detected in these.

Case 3. A youth, 20 years of age, was admitted on the 8th of July into the hospital with the following symptoms. He complained of sharp dragging pains in the extremities and along the spine, of great prostration of strength, &c. On the following morning was observed an erysipelatous blush on the inner side of the left knee-joint, which when moved, or even merely touched, was exceedingly painful. In the course of the day, another rosy patch made its appearance over the head of the fibula. It was of a dark red colour, and very tender on pressure. The patient reported that his indisposition commenced on the 27th ult. and that the severe rheumatic pains set in on the 2nd of the present month. Several doses of an antimonial emetic were administered; warm baths (for a full hour at a time) were used, and the affected knee was repeatedly leeched. In the muscles of both extremities were perceived numerous tubercles or knotty points, which were very distinct to the finger passed along. Between these points were situated small, insulated pustules, filled with a yellowish matter, and surrounded with an erysipelatous border.

No satisfactory account of the origin of his illness could be obtained from the patient himself; but his father states that his son had had charge of a glandered horse for several weeks, and that he had once or twice slept in the stable. On the 11th, numerous fresh boils made their appearance on the face and the extremities. The tongue was parched and invested with a brown crust; the pulse was rapid, small and weak. (Infus. Rad. Serpentariæ cum Liq. Ammon. Succin., Liquor. Ammon. Acet. and Æther. Sulphuric.)

On the left knee a large discoloured vesicle arose; when punctured, a considerable quantity of dark offensive discharge flowed out. The number of pustules gradually increased; several appeared on the prepuce and glans penis. An ichorous slime flowed from the nostrils and from between the eyelids. The patient became delirious and comatose, and death supervened during the night of the 12th instant.

Dissection. The abscesses in the muscles of the extremities and of the trunk were very similar to those observed in the preceding two cases. They were seated in the muscular texture, and when opened, were found to contain genuine pus. The largest were found imbedded in the biceps brachii and other muscles of the arm; the smallest were those situated on the dorsum of the foot. The erysipelatous spot on the left knee-joint had passed into a state of genuine gangrene.

From the history of these three cases, it appears that this most fatal disease commences with all the ordinary symptoms of rheumatic fever. The first stage lasts usually for ten or fourteen days, and may be viewed as a "stadium ebullitionis" to the second stage, which is characterised by an eruption of cutaneous pustules, and of muscular abscesses, under the form of furuncles or boils, and by the supervention of typhoid symptoms, delirium, stupor, and tendency to gangrenous changes of the affected parts.

The prognosis in all cases is invariably most gloomy. Few or no cases of glanders-infection have recovered.—*Med. Zeitung fur Heilk. in Preussen.*

In one of the numbers of Hufeland's Journal for last year, two cases of glanders-infection in the human subject are recorded.

A middle-aged man, who had been exposed to the infection from having to

take charge of a glandered horse, began to ail on the 7th of April. A week afterwards, when admitted into the hospital, he complained of pains in all his limbs and along the spine; and on his arms and legs there were observed several small tumors, unequal and elastic to the touch, and retaining the natural colour of the skin. Mercurial ointment was rubbed upon these; some of them diminished and almost disappeared; one or two advanced slowly to imperfect suppuration. The patient gradually became hectic, was distressed with cough and obstinate diarrhœa, and died in the second week of the following August. [The course of this case was much more protracted than in most cases of glanders-infection.]

Dissection. The abscesses contained a viscid and unhealthy pus; the surrounding cellular tissue was destroyed, and the substance of the adjacent muscles was degenerated and wasted. The lungs were diseased in various parts; being either hepatized, tuberculated, or softened and decayed. The trachea was inflamed—the intestines were normal. [A most unsatisfactory narrative.]

In the next case, the disease (if it was really glanders), was still more slow and tedious in its fatal progress. A young soldier, who had for some weeks been occupied in the stables where there were several glandered horses, was attacked with feverish symptoms, which were accompanied with pains over all his body and limbs, and with sharp stitches in the side. These symptoms were relieved by the use of depletory remedies; but as he was recovering from them, painful tumors began to make their appearance on the legs and arms. They became soft and fluctuating, and the integuments covering them assumed a livid hue. During the following week, an eruption of pustules took place on the forehead; the eyelids became swollen and painful, and an erysipelatous redness was diffused over the face. The alæ nasi became much tumefied, and an offensive mucus distilled from the nostrils. The patient recovered, but never perfectly, from these distressing symptoms. The general health continued cachectic to the period of his death, *eight months* from the commencement of his illness. On dissection the lungs were found to be most extensively tuberculated; the mucous lining of the nostrils and pharynx was inflamed and ulcerated, and insulated spots of inflammation were found scattered along the œsophagus, stomach and intestines. The trachea and its divisions were filled with a viscid mucus. In the muscles, as well as in the cellular substance of the extremities, there were numerous purulent tubercles. No purulent matter was found in any of the veins which were examined. The lymphatic vessels and glands in different parts were enlarged and apparently diseased.

The features of these cases will remind the experienced practitioner of the worst examples of ecthyma cachecticum.—*Rev.*

HYDRATED PEROXIDE OF IRON, AN ANTIDOTE TO ARSENIC.

A German chemist, M. Bunzen, has lately announced that he has discovered an antidote to the virulent effects of arsenic, in one of the oxides of iron. His experiments have attracted much notice in France, and several of the leading toxicologists have already announced their assent to the practical conclusions which M. B. has drawn from his enquiries. M. Orfila is of opinion "that the importance of the discovery has not been exaggerated, and he therefore recommends a trial of the proposed remedy in cases of poisoning from arsenic." More recently MM. Miguel and Soubeiran have instituted an extensive series of examinations, the results of which we now propose to submit to our readers' attention.

To a middle-sized dog, 24 grains of white arsenic diffused through water were given. In ten minutes, the animal began to vomit, and the vomiting was soon followed with severe colicy pains, and with bloody alvine evacuations. After other ten minutes had elapsed it was made to swallow four

drachms of the hydrated peroxide of iron diffused in water. During the rest of the day, the dog was feeble and exhausted; but next morning he was found to be quite lively, and in other two days he was as well as ever.

Eight grains of arsenic were given to a small dog. Ten minutes afterwards, when the effects of the poison had began to shew themselves, a dose of the peroxide was administered: "Des l'apres-midi ce chien paraissait tout-a-fait retabli."

These two experiments seemed to indicate that the peroxide acted as a direct antidote to the arsenical salt; but as in both, the animals were permitted at first to vomit freely, it may be objected that the poison was discharged from the stomach, before the peroxide was taken. To avoid therefore this objection, was the motive of the following experiments, in which the œsophagus of the animal was tied, after the arsenical dose had been swallowed. But first of all it was necessary to determine the average length of time, that a dog would live, after the mere operation of putting a ligature round the œsophagus. This was ascertained to be, from sixty to eighty hours. When a dose (twelve grains) of white arsenic were given before the œsophagus was tied, death followed in two hours, all the symptoms of poisoning (vomiting excepted) having been previously manifested.

Let us now ascertain what are the effects of exhibiting the hydrated peroxide, before the œsophagus is tied. Twelve grains of arsenic, diffused in water, were given to a small-sized dog, and immediately afterwards about two drachms of the peroxide of iron; the œsophagus was then tied, and the animal let free. For some time it made violent efforts to vomit; but, after the lapse of three hours, "les effets du poison avoient completement disparu." Twenty-four hours after the operation, the ligature was removed from the œsophagus, and the dog was made to swallow a little milk: no solid food could be swallowed; and, on the sixth day, it died.

To other two dogs, "d'assez forte taille," eighteen grains of the poison, and about three drachms of the peroxide were given, and the œsophagus was tied. One lived for seventy-eight hours, and the other for eighty-four hours after the operation. The results of these experiments are, that when the peroxide of iron was administered along with the poison, and the œsophagus then tied, the life of the animal was continued nearly as long as after the mere operation of tying the œsophagus, when no poison had been given; and in one case, in which the ligature was removed after the expiry of 24 hours, death did not ensue until the sixth day. It is impossible, therefore, to question the efficacy of the peroxide, as an antidote to the arsenious acid, at least when it was administered immediately after the poison had been swallowed.

A new set of experiments was now instituted, for the purpose of determining, whether the peroxide could in any measure counteract or diminish the virulent effects of the arsenic, after these had been once fairly established.

Eight grains of arsenic were given to a small-sized dog, and, two hours afterwards, a dose of the peroxide was administered. The animal died in a quarter of an hour after the peroxide had been injected into the stomach. To another dog, eighteen grains of the poison were given, and the œsophagus was then tied. Violent efforts at vomiting were induced. At the end of an hour, an opening was made into the œsophagus immediately beneath the ligature, and about three drachms of the hydrated peroxide, diffused in water, being injected, a second ligature was applied. This dog survived for ninety hours after the first operation. In other three experiments, conducted in the same manner, the animals lived for 24, 38, and 30 hours after the poison had been given them.

The counteracting effects, therefore, of the peroxide, even when a full hour had elapsed from the swallowing of the poison, are satisfactorily established by the results of these four trials. The prolongation of life, from two or three hours to between thirty and forty, attests the powerfully antidotal efficacy of the chalybeate. It was observed

that, if the poison was blended with any fatty or oily matters, the peroxide of iron acted much less quickly and efficiently.

We shall now mention the results of some experiments made by M. Bunzen and other chemists, on the reciprocal chemical effects of the arsenic and peroxide out of the body.

If to a cold solution of one part of arsenic, twelve times as much of the hydrated peroxide (recently prepared) be added, the whole of the arsenic is immediately precipitated, in the form of an arsenite of iron. Such is the statement of M. Bunzen. That the neutralization may be complete, it is necessary that a much larger quantity of the peroxide, than exists in the precipitated arsenite, be present in the mixture. This is very apparent, if the experiment be performed in the following manner. To a solution of arsenic, let there be added only so much peroxide, as is known to be requisite to form a neutral arsenite. It will be found that a large portion of the arsenic remains behind in solution, and is not precipitated, however long the mixture be kept. But, if successive additions of the peroxide be made, more and more of the arsenic becomes precipitated, until, at length, no traces of the poisonous salt can be detected in the water. On the other hand, the precipitation is instantaneous and complete, if five times the quantity of the peroxide, that exists in the neutral arsenite to be formed, be added at once. Such are the effects of adding the peroxide of iron, to the arsenic in the state of aqueous solution. When, however, the arsenic is undissolved, the action of the peroxide, in forming a neutral arsenite of iron, is very slow and uncertain. The solution of the arsenic is quite indispensable to its rapid neutralization by the peroxide; and hence we can appreciate the injurious effects of any greasy matter in the stomach, in sheathing the arsenical salt from the action of the peroxide, and in therefore counteracting the antidotal efficacy of the latter.

The peroxide, which was used in the experiments of MM. Miguel and Soubeiran, was procured by the following process:—

The crystallized sulphate of iron was boiled in six times its weight of water in a platina or porcelain vessel: to the boiling solution, nitric acid was added gradually, as long as any ruddy fumes were disengaged. This was done for the purpose of bringing the oxide to the maximum of oxygenation. The liquor was diluted with water, and pure ammonia dropped in, to precipitate the peroxide, which is then to be washed by repeated affusions of distilled water, for the purpose of removing all traces of the ammoniacal salts. As the peroxide must be kept mixed with so much water, as to give the mixture the consistence "d'une bouillie claire," it is necessary to have some data, to determine the quantity which we use at any time. One part of the crystallized sulphate, treated as we have described above, yields exactly the third of its weight of hydrated peroxide, if this peroxide were in the dry state. The quantity, therefore, of sulphate which it is necessary to decompose, in order that we may have a sufficient dose of the peroxide, as an antidote to any given quantity of arsenic, is just thirty-six times the quantity of this poison. We have already mentioned how necessary it is that there should be a large excess of the peroxide, in order that the neutralization of the arsenic may be rapid and complete.

Let it be remembered that the peroxide should be fresh prepared, whenever we are about to use it as an antidotal remedy. If it has been dried and re-dissolved, its virtues cannot be depended upon.

As yet, no cases of poisoning with arsenic in the human subject, have been treated with the hydrated peroxide; but, from its unquestionable efficacy in the cases of the lower animals, we have most rational grounds for anticipating almost equal success in the human subject.—*Bulletin Gen. de Therapeutique.*

We have hesitated to publish the preceding memoir (which has lain in our desk for the last twelve months),

as various writers had called in question the correctness of the statements therein made, and some had even alleged that the peroxide of iron was altogether without effect in counteracting the poisoning from arsenic. Within the last few months, however, we have discovered the following notices respecting this important subject.

In the Medicinishes Correspondenz-Blatt, Dr. Buzorini has narrated two cases of arsenical poisoning—not quite satisfactory in their details, we must confess—occurring in the human subject. Both patients, it is to be remembered, had vomited freely before the peroxide was administered. They recovered perfectly.

In the Journal de Medecine et de Chirurgie Pratiques, for last September, a case is reported by a M. Geoffroy. The details are lamentably imperfect. The hydrated tritoxide of iron was administered in about twenty minutes after the poison had been swallowed. The patient, a middle-aged man, vomited several times and he was also purged. No symptom of arsenical poisoning shewed itself; neither pain in the stomach, nor any sense of heat in the throat. He had been in a state of almost delirious excitement when he had swallowed the poison, and this delirium still continued. For the space of eight hours he was made to swallow at intervals tepid water in which the tritoxide had been diffused. On the following night he slept quietly, and next day all unpleasant symptoms had passed away.

It is supposed that this patient had swallowed not less than a drachm and a half of arsenic (!). Upwards of six ounces and a half of the ferruginous tritoxide had been administered. We (the Rev.) regret that we cannot agree with our French brother-critic that the preceding case "offre tout le degré d'authenticité qu'on peut desirer."

In the Journal des Connaissances Medico-Chirurgicales we find a still stronger testimony in favour of the antidotal powers of the tritoxide of iron. Four children, two of about seven years of age, and the other two of about five, had eaten some pieces of cake, which they had found lying on a mound near their father's house. The well-known symptoms of metallic poisoning soon developed themselves. M.M. Bineau and Majesté being summoned to their relief, readily detected in some pieces of the cake the presence of the arsenious acid, by means of some chemical tests, and by the peculiar garlic odour emitted when a portion of the cake was placed upon the live coals. The vomiting having been encouraged for some time, large doses of the tritoxide of iron were exhibited for several hours in succession. From three to five ounces in all were taken by each of the young patients. They all recovered.

On an accurate chemical examination of the cake (which, it was discovered, had been prepared for poisoning rats), the presence of the arsenious acid was unequivocally demonstrated. The urinal fluid tests were first employed, and then by sublimation in a small glass tube, the metallic arsenic was reproduced.

The method which M. Majesté recommends for preparing the tritoxide is by dissolving an ounce of iron-filings in a mixture of four ounces of nitric and four ounces of muriatic acid in a capacious vessel. To the solution, sixteen ounces of distilled water are to be added, and then two or three ounces of liquid ammonia are to be mixed with it. A hydrated tritoxide of iron is immediately precipitated, About twelve ounces of it are obtained by using the above-mentioned quantities of the different substances. It is of the consistence of a soft pap: one spoonful weighs about an ounce.

It deserves to be noticed that, in the cases of these children, the tritoxide was not administered for nearly three hours after the cake had been eaten, and that all the characteristic symptoms of arsenical poisoning had already manifested themselves.

The modus operandi of the tritoxide is by combining with the arsenious acid, and forming a compound which is insoluble, and therefore quite innocuous.

CONGENITAL OCCLUSION OF THE VAGINA CURED BY A NEW METHOD.

The following very interesting case was recently communicated to the Institute by M. Amussat, one of the most active and able surgeons of the French Capital.

A girl fifteen years of age was brought from Germany to Paris for the purpose of consulting some of the leading surgeons there, MM. Boyer, Marjolin, Magendie and the narrator, for the relief of this distressing malformation. Her mother stated that she had enjoyed very good health until about two years ago, when she began to suffer severely from periodic attacks of pain in the abdomen and in the region of the kidneys. The first attack was on the 19th of June, 1831; it lasted for nine days. The second occurred five weeks afterwards and continued with occasional intervals of ease for nearly a month. During the following eight months, there were six attacks. At first they were attributed to an obstruction of the bowels; but it was soon discovered that this was not the cause, and on examination it was found that there was no trace of any vagina. The periodicity of the attacks was therefore attributed to the recurring efforts of Nature to bring about the catamenial discharge. When she was brought to Paris in February 1832, the following was the state of the patient. The abdomen was enormously distended, so as to equal almost the size in the sixth month of pregnancy: at the lower part was distinctly felt a firm, resisting, globular tumor, which was supposed to be the enlarged uterus. The external parts of generation appeared to be perfectly normal, but on separating the labia there was no appearance of any vaginal orifice; the meatus urinarius was situated considerably lower down than usual, occupying nearly the centre of the fossette of the vulva, and the concave surface corresponding to the orifice of the vagina was smooth and lined with a mucous membrane. Some difficulty was found in passing a catheter into the bladder, for it was requisite to direct it very obliquely upwards. On introducing the finger into the rectum, the catheter was felt very distinctly in consequence of the great thinness of the intermediate parts; and higher up the finger met with a large rounded tumor, which occupied the hollow of the pelvis: this tumor was tense, fluctuating, and seemed to have very thin parietes. The nature of the case could not be mistaken: the urethra, bladder and rectum were glued together; and the vagina, at least in two thirds of its length, "manquait absolument." The uterus in consequence had become enormously distended by the retained menstrual secretion. The prognosis was certainly very unfavorable. MM. Magendie and Marjolin were of opinion that the only thing to be done was to tap the uterus from the rectum, and thus relieve it from its contents. M. Boyer regarded the case as hopeless, founding his opinion on the result of all similar cases on record, and more especially in consequence of some recent cases known to him and to M. Marjolin, where an eminent surgeon, in attempting to separate the agglutinated parts with the knife, had perforated the bladder, and had caused the speedy death of the patients. He therefore strongly recommended that nothing should be done.

M. Amussat, while he agreed with the late venerable surgeon of La Charité in condemning any attempts with the knife, was unwilling to abandon the case as irremediable. Two cases of imperforation of the vulva had recently occurred in his practice, where he had succeeded in re-establishing the vaginal passage by gradually tearing asunder the unnatural union between the urethra and the rectum with blunt instruments and with the fingers, and he thought that the same method was worthy of trial in the present instance. Having obtained the consent of the girl and her mother, he proceeded on the 29th of February to put it into practice. He used at first a large sized straight sound, and applying its rounded end to the fossette of the vulva immediately below the opening of the meatus urinarius, he pressed it with considerable force in the direction of the vagina,

" comme pour faire un trou." He repeated this operation with the point of his finger, keeping all the while the fossette stretched by drawing the peri-neum strongly backwards, and the meatus urinarius upwards. Having continued the *boring* for some time he found that " il resta un trou, ou plutôt une impression profonde sans dechirure, ni effusion de sang." A small piece of prepared sponge was placed in the hollow (enfoncement) thus made, and it was retained in its place by a bandage. Three days subsequently, the operation was repeated. M. Amussat used two fingers this time in making the pressure in the line of the vagina, and he employed such force as to occasion a slight laceration of the parts, and consequently some effusion of blood. " Ce decollement fut tres douloureux, mais profitable."

The dilatation thus obtained was prevented from contracting by the insertion of a piece of sponge. For the following three days, the same manœuvre was repeated, and with more and more effect, the two fingers being always introduced with the points of their nails close to each other and then gradually separated, so as to tear gently asunder the agglutinated canal. By having the catheter in the urethra and a finger in the rectum, the risk of wounding these parts was quite obviated. Already an inch and a half or nearly two inches of the canal had been gained, and the finger could then distinctly feel the distended uterus. For four days the patient was allowed to remain quiet without any thing more being done, and on the 9th of March M. Amussat perforated the distended tumor, with a small trocar using his finger as a director. On withdrawing the stylet, only a few filaments of dark-coloured blood escaped through the canula. He had recourse therefore to a bistoury, which he conveyed along his finger, and which he cautiously plunged into the tumor, the walls of which were found to be extremely firm and resisting. Some dark, glutinous and thick blood, more like thick chocolate than any thing else, flowed out. The aperture made with the bistoury being small, he attempted to enlarge it with the point of the finger, but this was impracticable in consequence of the hardness of the tissues. He therefore again introduced the bistoury and enlarged the incision. Immediately a stream of glutinous blood escaped. The finger could now be passed into the cavity of the tumor, which was found to have a smooth surface; but the pain occasioned by this proceeding was so severe, that the patient could scarcely endure it. The finger being withdrawn, M. Amussat divided with the knife a few bridles which prevented the free dilatation of the incision, and immediately ten or twelve ounces of dark blood were discharged. The size of the abdomen was very sensibly diminished. An elastic gum canula was left in the orifice and made secure in its place by a bandage passed round the pelvis. The constitution suffered a good deal during the next twenty-four hours. An injection (we suppose of tepid water) had been twice practised into the cavity of the tumor, and had brought away a little glairy blood; nearly two pints in all had escaped since the operation. On the following two days the patient was extremely low and oppressed, and feverish symptoms, attended with vomiting, colicy pains and bilious diarrhœa came on. There was great prostration of all the vital powers; the pulse was rapid and feeble; there was an acute fixed pain in the left iliac fossa; the whole abdomen was tender and inflated, and there was a great tendency to stupor. M. Magendie being summoned in consultation, expressed great alarm for the result of the case. The employment, however, of leeches to the left groin, and of mercurial ointment rubbed over the whole abdomen, gave very decided relief. The patient, suffering much from tympanitic distention of the bowels, a long elastic canula was passed into the rectum high up, and gave exit to a large quantity of gas. On the 13th, the patient was somewhat easier, and the edges of the incised uterus were found to be suppurating freely. As the pain in the left groin returned towards evening, fifteen leeches were again ap-

plied; but the patient was so weak, that it was necessary to stop the bleeding from the bites. During the following week, the state of the patient did not improve much; there was always a distressing feverishness, and extreme languor and depression. A large canula was left occasionally for twelve or twenty-four hours in the vagina. On the 18th, there was a bilious diarrhœa, and with the motions a quantity of blood, altogether similar in appearance to what had escaped from the vagina after the operation, was discharged per anum. This phenomenon was repeated several times for some days in succession. From this date, however, to the 1st of April, the general condition of the patient very sensibly mended, although there was still great weakness, and tendency to attacks of evening feverishness. By the aid of canulæ, gradually used larger and larger, the artificial vagina had become considerably wider. The swelling and tenderness in the left groin was much less, and the uterus had resumed its normal dimensions. Although there were occasional relapses of pain and of general distress, the patient was so well by the 23d of April, that she was able to leave Paris for her native place, on the banks of the Rhine.

By a letter received from the mother, M. Amussat learned that, a few days after reaching home, her daughter menstruated. The discharge was pale, and continued for nearly twenty-four hours. Ten days afterwards the catamenia reappeared, and lasted only for six hours. From this period they did not return till the month of July, in the first week of which, after suffering greatly from acute pain in the back and through the pelvis, the patient again menstruated. The quantity of the menses was profuse, and they were mixed with coagula, like pieces of softened liver. During the following four months, the patient suffered greatly at each catamenial period, and in October she was taken so seriously ill, that her mother was alarmed that she might have an attack similar to what occurred a few days after the operation, when the discharge of blood per anum took place. It was not until the February of 1833, that the girl's health was fairly re-established. From this date, the catamenia returned regularly every four weeks, without being attended with pain or any inconvenience, and the patient, from being weak and emaciated, recovered her strength and embonpoint.

M. Amussat remarks that, in the successful treatment of the preceding case, he was marvellously assisted by Nature having induced an adhesion between the parietes of the distended uterus and the large intestine, and having thus prevented the effusion of its contents into the abdominal cavity—an accident which otherwise must, in all probability, have taken place at the time when the copious discharge of blood per anum occurred.

[We are by no means satisfied by the details of the report, that the discharge of blood from the bowels, on the 18th of March, was the result of any rupture of the uterus or of the Fallopian tube into the large intestine, as alleged by M. Amussat. The discharge may have been quite independent of such an accident.—REV.*]

In July, 1834, M. Amussat's patient re-visited Paris. She was in perfect health; all the functions, and especially that of menstruation, being performed "à merveille." Madame Boivin, being commissioned to make an examination of the parts, drew up the following report:—

"The vagina is nearly an inch and a half in depth; its surface is smooth, and altogether similar to the inner surface of the labia. There is no appearance of labia minora or nymphæ. The

* The reason given by M. Amussat for his opinion, viz. the circumstance of the blood discharged per anum being quite similar to what had escaped per vaginam after the operation—is to us unsatisfactory. We are well aware that extra-uterine conceptions, and abscesses of the Fallopian tubes and of the ovaria, have been discharged by the bowels; but, without further proof, we cannot readily admit this explanation in the present case.

clitoris is well formed. At the extremity of the vagina, the finger discovers a small cicatrix, which feels like the umbilicus of a new-born infant; but it is not provided with any aperture. Upwards and behind the symphysis pubis, is felt an oblong elastic substance, about half an inch in diameter: this I took at first to be the cervix uteri; but, on a more minute examination, it proved to be formed by the anterior wall of the vagina, pushed down and somewhat displaced by the dilated urethra.* At the extremity of the vagina, where the small cicatrix is felt, I find with the speculum an opening, through which I can pass a large probe for five or six lines. The finger introduced into the rectum discovers a small oblong body, terminating upwards in another one of larger dimensions, which is no doubt the uterus. This organ seems to me to be perfectly normal."

In a subsequent consultation between MM. Amussat, Marjolin, and Magendie, they all agreed—" qu'il existait un petit vagin, qui s'etait formé aux depens des petites et meme des grandes levres, la muqueuse ayant eté attirée dans le vagin artificiel par la cicatrice; et qu'au fond de ce vagin on decouvrait un trou, ou fistule, qui conduisait à la matrice, et par lequel l'ecoulement des regles se faisait librement." MM. Marjolin and Magendie cheerfully expressed their decided conviction, that the life of the patient had been saved by the operation which M. Amussat had performed; an operation, the result of which was the more creditable to his skill, as it had never, to their knowledge, succeeded before; but it was very doubtful, they added, whether the unfortunate girl was, or ever could be in a marriageable condition.

There was nothing, indeed, to prevent the occurrence of conception; but the imperfect state of the vagina must expose the patient to extreme danger at the period of delivery, if gestation should advance to the full term. The fistulous opening in the uterus and the utero-vaginal canal (le trajet de la fistule utero-vaginale), can perhaps never dilate sufficiently to permit a full-grown fœtus to pass.

The use of bougies, to be gradually increased in size, was recommended with the view of increasing the size of the utero-vaginal canal. On the 29th Nov. 1835, M. Amussat received from the patient's mother a letter, wherein she states—" My daughter keeps her health well; she is very regular, and suffers no pain at the periods. Bougies of about half an inch in thickness can be introduced to the depth of four inches and a half. The fistulous cicatrix is now easily dilatable."

Such are the particulars of this very interesting case at the period when the report of it was submitted to the French Institute.

M. Amussat strongly advises surgeons to attempt the cure of all such cases in the manner which he practised in the preceding one;—by cautious laceration and dilatation of the united parts, rather than by division with a cutting instrument. It will have been observed that two of the surgeons who attended this case, recommended that the uterus should be punctured from the rectum, for the purpose of giving exit to the retained catamenia. M. Amussat attained the same object in a much more scientific and satisfactory method; and his example deserves to be followed in similar cases. M. Boyer, in the tenth volume of his Surgery, has treated, at considerable length, of the various congenital defects of the female organs of generation, and has alluded to the practice to be followed in occlusion of the vagina. He says: " death is the inevitable consequence of the accumulation of the menses in the uterus, when there is a complete absence of the vagina. The only method of preventing the fatal event is to puncture the uterus, either from the perineum (provided there be a sufficient thickness of the septum between the rectum and the

* The patient, it appears, had committed the awkward mistake of having introduced pieces of sponge into the meatus urinarius instead of into the vagina, and had thus caused a very considerable dilatation of the urethra for about an inch of its extent.

urethra) or from the rectum. The operation is a very hazardous one: the bladder has been perforated in more than one case, and the patient has necessarily perished in consequence; and when this accident has been avoided, I have known the patients die from inflammation of the uterus and of the adjoining parts." M. Amussat mentions that, in the unpublished Archives of the Royal Academy of Medicine, there is a history of a case of occlusion of the vagina, successfully treated by Dr. Villiaume of Metz, who divided the vulva with a scalpel to the depth of an inch, and then perforated the distended uterus with a bistoury. In this case, there appears to have been a considerable thickness of substance in the septum, between the rectum and the urethra.—*Gazette Med. de Paris.*

SINGULAR CASE OF CONGENITALLY IMPERFORATE VAGINA; MENSTRUATION BY THE URETHRA: SUCCESSFUL OPERATION.

Dr. Coste, the "premier chirurgien-chef-interne" of the Hôtel Dieu at Marseilles, is the narrator of the case, the abridged report of which we now communicate. A young woman, 21 years of age, exhibited the following strange state of the generative organs. The clitoris was greatly enlarged, so as to resemble the penis of a boy at 12 or 14 years old: the situation of the meatus urinarius was normal, but through it the menses, as well as the urine, were regularly voided. The girl had menstruated regularly since she was 13 years of age. There was no appearance of a vagina; its place being occupied with an integument covered with hair, and exhibiting a raphé along the centre. The labia pudendi were merely rudimentary. The author adds that in the site of the right inguinal aperture there was "un testicule tres facile à reconnaitre par sa forme, sa dureté, et la douleur qu'y determinant la pression." (There might have been a *something*, but surely it was not a *testicle.—Rev.*)

The features and general characters of the body and limbs were those of a female, and her "gouts et penchans" were in conformity. The young lady "aimait tendrement" a young gentleman; and it is not wonderful that she was "pleine d'espoir et de joie," at my proposal to fit her for matrimonial duties. Dr. Coste, having first introduced a canula along the meatus urinarius, ascertained that it might be passed in two directions; in one towards the bladder, and in the other, towards the uterus. It was therefore deemed almost quite certain that the vagina opened into the urethra, at a short distance from the opening of the meatus. The existence of the catamenia afforded a sufficient proof that a uterus was present. On cutting to the depth of an inch in the line of the raphé he could not discover any trace of the vagina; he therefore determined to slit the under wall of the urethra from its orifice to the point, where the canula seemed to glide from the urethra in a direction towards the uterus. The finger being now introduced to the bottom of the wound, he discovered in the middle of a mucous cul-de-sac a rounded projecting object, which proved to be the os tincæ. The enlarged clitoris was then amputated by one stroke of the scalpel. A large roll of linen well smeared with oil was left in the newly-formed vagina, and the patient was put upon a rigorous antiphlogistic regimen. The roll of linen was withdrawn and replaced daily. At the end of two months the cicatrization of the divided urethra was complete; but the use of gradually enlarged bougies was continued for some time afterwards, in order to prevent the tendency of the artificial vagina to contract. The catamenia returned with their accustomed regularity, and were now discharged per viam naturalem. This damoiselle was married, we are told, eight months after the operation was performed: "la jeune epouse m'a avouée que le coit s'executait sans la moindre difficulté, et que les sensations qu'elle eprouvait etaient vives." (A delicate confession!)—*Journ. des Connoiss. Medicales.*

Human Embryo vomited by a Child.

Dr. Vourons in a letter recently read to the Royal Academy narrates this extraordinary occurrence. "I have recently had occasion to observe in the town of Syra, where I reside, a most curious phenomena. A boy, three years of age, who had suffered for a considerable time from the symptoms of vermination, vomited after repeated efforts a human embryo. I have ascertained by careful examination that it was truly an embryo; and the police, having suspected some fraud, has instituted a minute enquiry, the result of which is quite conclusive in favour of the facts as now stated." When this letter was read to the Academy, M. Geoffroy St. Hilaire (whose authority on such subjects is unquestionably very high), stated that he had lately had an opportunity of witnessing a similar example. He was on the spot at the time that the strange substance was vomited; and since his return to Paris he has examined it along with M. Milne Edwards, and has determined that it was a "Mole," without any distinction of members or organs.

On the more Common Causes of Death in New-Born Infants.

The following may be considered as the most frequent of these causes. When, after labour has once fairly commenced, the pains either cease entirely, or they abate and intermit so much, that the delivery is rendered very tedious and protracted—when convulsions occur during the progress of labour—when the navel-string is either too short, or has become twisted round the neck, or some other part of the child—when the navel-string is prolapsed along with the head and is compressed between it and the walls of the pelvis, so that the circulation is interrupted—when the placenta becomes partially or entirely detached before the expulsion of the child, and hæmorrhage is thus induced—when the os uteri, or the constrictor muscle of the vagina is spasmodically contracted (as is apt to occur in first labours) round the neck of the child—or lastly, when the pelvis is so small that the exit of the head is delayed for a great length of time. Such are the most common causes of the death of the child during the act of labour. It may be useful now to allude briefly to those from which the child may perish immediately after the delivery has been accomplished:—when the child is exceedingly feeble and exhausted—when the child is born closely invested with the membranes, and the head is not disengaged from these sufficiently soon—when the child is at birth apparently still-born, and the appropriate means of resuscitation are not adopted early enough—when respiration is interrupted by an inordinately-sized thymus gland pressing on the trachea, or by any defective state of the pulmonary apparatus—when the mouth is plugged up with viscid mucus, or, as sometimes happens, the tongue falls backwards and closes up the fauces—when the child is seized with apoplexy—when the mother is in a state of syncope at the moment of delivery—or when, from the ignorance, or the wilful neglect of the attendants, the necessary means are not adopted for the preservation of the child.—*Wildberg's Jahrbuch der gesammten Staatsarzneikunde.*

Treatment of Ossifications occurring in Muscular Texture.

The ossifications to which the author alludes are what the German surgeons call "exercise—or drill bones," from their occurring in the deltoid muscles of the arms in young recruits. They are caused by the pressure of the musket on the shoulder. Richter published, a few years ago, a pamphlet on this subject, and described very accurately the progress of the change, from a phlegmonous hardening of the skin and subcutaneous cellular tissue, to a gradual bony induration of the more superficial

layers of the deltoid muscle. The following is a case which we find reported by one of the Prussian army surgeons.

In the left shoulder, over the anterior side of the joint, of the fusileer K. of the 31st infantry regiment, an "exercise-bone" had formed. It was about two inches and a half long, and nearly an inch broad; and it felt to be as hard as a piece of stone. It had gradually formed during the two or three months drilling, which the young soldier has to pass through, when he enters the army, and had been caused no doubt by the irritation induced by the pressure of the musket on the point of the shoulder. The surgeon of the regiment had at first prescribed several applications of the cupping-glasses, and the infrication of mercurial ointment on the swelling, night and morning. After a fortnight's continuance of these means, half a tea-spoonful of the tincture of iodine was ordered to be rubbed upon the joint twice a day; and to increase the activity of the absorbents, the cold douche bath was used, in conjunction with active friction. By a steady perseverance in the employment of these remedies, the hard swelling was gradually dissipated, so that the young man could shoulder his musket, without suffering the slightest inconvenience.

In some cases, the mere discontinuance of the drill for several months is followed by a dispersion of the indurated swelling. It appears that the excision of the bony mass has been occasionally resorted to; but we should think that this severe remedy is seldom advisable. Might not the evil be prevented by the recruit bathing the shoulder with some spirituous discutient lotion during the first months of his drilling?—*Medizinische Zeitung.*

III.

Clinical Review.

BIRMINGHAM INFIRMARY.

1. REPORT OF THE OUT-CASES ATTENDED BY GEORGE PARSONS, Esq. F.L.S., FROM JANUARY 1, 1834, TO DEC. 31, 1835.
2. REPORT OF THE OUT-PATIENTS ATTENDED BY FREDERICK RYLAND, Esq., BETWEEN THE 25th DECEMBER, 1834, AND THE 25th DECEMBER, 1835.

THESE Reports are creditable to the authors, and evince a very praiseworthy disposition on their part, to render the facts that fall under their notice useful, as the bases of statistical conclusions. We feel much pleasure in thus publicly complimenting Mr. Parsons and Mr. Ryland, and in encouraging them to persevere in this honorable labour. They cannot benefit their readers, without in a greater ratio benefiting themselves.

Let us first take up the Report of Mr. Parsons. In the course of twelve months, 2,975 cases came under his observation. Of these, 141 proved fatal. The deaths amongst the males were 72—amongst the females, 69. Of the males, 35 died under ten years of age, and 37 above that. Of the females, 34 died under ten years of age, and 35 above that. The following table shews the diseases and ages of the individuals who died.

Diseases and Ages of the 141 *Fatal Cases.*

	1st Year.	1st to 5th.	5th to 10th.	10th to 20th.	20th to 30th.	30th to 40th.	40th to 50th.	50th to 60th.	60th to 70th.	70th to 80th.	80th to 90th.	Males.	Females.	Total.
Dentitio	1	..	..	..	..	..	..	..	..	..	..	..	1	1
Erythema marginatum	1	..	..	..	..	..	..	..	..	..	..	..	1	1
Febris rem. Infantum	1	..	..	..	..	..	..	..	..	..	..	1	..	1
Pertussis	2	2	..	..	..	..	..	..	..	..	..	1	3	4
Variola	1	2	..	..	..	..	..	..	..	..	..	..	3	3
Convulsiones Infantum	3	3	..	..	..	..	..	..	..	..	..	4	2	6
Marasmus	3	6	3	..	..	..	..	..	..	..	..	2	9	11
Scarlatina	2	10	10	1	..	..	..	..	..	..	..	12	11	23
Pneumonia	1	1	1	..	1	..	..	..	..	..	..	4	..	4
Laryngitis acutus	1	1	..	..	..	..	1	..	..	..	..	3	..	3
Diarrhœa	4	..	..	..	..	..	1	..	1	1	..	1	6	7
Synochus	1	5	2	1	1	1	..	2	..	..	..	10	3	13
Burn	..	1	..	..	..	..	..	..	..	..	..	1	..	1
Hydrocephalus acutus	..	..	2	1	..	..	..	..	..	..	..	1	2	3
Phthisis Pulmonum	..	..	..	2	5	11	3	2	..	..	..	13	10	23
Cynanche tonsillaris	..	..	..	..	1	..	..	..	..	..	..	..	1	1
Fungus medullaris	..	..	..	1	1	..	..	..	..	..	..	1	1	2
Bronchitis acutus	..	..	..	..	1	..	..	..	..	..	..	1	..	1
Peritonitis acutus	..	..	..	..	1	..	..	..	1	..	..	..	2	2
Pleuritis	..	..	..	..	..	1	..	..	..	..	..	1	..	1
Mania	..	..	..	..	..	1	..	..	..	..	..	1	..	1
Epilepsia	..	..	..	..	..	..	2	..	..	..	..	1	1	2
Ascites	..	..	..	..	..	..	1	1	..	..	..	1	1	2
Bronchitis chronicus	..	..	..	..	..	..	..	3	5	3	..	5	6	11
Glottitis acutus	..	..	..	..	..	..	..	1	..	..	..	..	1	1
Anasarca	..	..	..	..	..	..	..	1	2	..	..	..	3	3
Scirrhous Pylorus	..	..	..	..	..	..	..	1	1	..	..	2	..	2
Purpura	..	..	..	..	..	..	..	..	1	..	..	1	..	1
Cholera billosa	..	..	..	..	..	..	..	..	1	..	..	1	..	1
Incontinentia Urinæ	..	..	..	..	..	..	..	..	1	..	..	1	..	1
Hernia	..	..	..	..	..	..	..	..	1	..	..	..	1	1
Icterus	..	..	..	..	..	..	..	..	..	1	..	1	..	1
Apoplexia	..	..	..	..	..	..	..	..	..	1	..	1	..	1
Constipatio	..	..	..	..	..	..	..	..	..	1	..	1	..	1
Fractura	..	..	..	..	..	..	..	..	..	..	1	..	1	1
Males	8	14	13	3	7	8	3	5	7	4	..	72	69	141
Females	13	16	5	3	4	6	5	6	7	3	1	69		
Total	12	30	18	6	11	14	8	11	14	7	1	141		

Now it appears that 51 of those who died were under five years of age, and 69 under ten years. None were engaged in any trade. Mr. Parsons, indeed, informs us that, except in the pin-manufactories, it is not common for children under ten years of age to be employed in the workshops in Birmingham. Of the 72 persons above the age of ten years, only 43 were engaged in any employment, viz. 32 males, and 11 females.

It would be idle to found any conclusions on so small a number of cases, and we therefore omit the table which shews the occupations of these 43 per-

sons. Mr. Parsons, to render the list more valuable, subjoins another table, containing the trades of 134 persons, who died in three years—in 1833, 1834, and 1835. Of the 134, 100 were males, and 34 females. This, also, is too small a number, and the deaths are confined to too limited a period, to enable us to attach much importance to such data. Yet they afford an introduction to an acquaintance with the diseases incidental to various trades in Birmingham, and we accordingly subjoin this table. The only diseases mentioned are consumption, chronic and acute bronchitis, and continued fever, for the deaths from other causes were too few to require special notice.

MALES.	Phthisis.	Chr. Bronchitis.	Ac. Bronchitis.	Synochus.
Tailors	5	2	..	..
Shoemakers	2	2	1	..
Clerks	2	..	..	..
Butchers	2	..	..	..
Labourers and Gardeners	2	..	..	..
Masons and Bricklayers	2	1	..	..
Pedlars	1	1	..	1
Porters	1	..	..	1
Ostler	1	..	..	..
Barometer and Mirror-makers	3	..	..	..
Painter	1	..	..	..
Skinner	1	..	..	..
Carpenters and Cabinet-makers	2	1	..	1
Brush-maker	..	..	..	1
Whip-maker	1	..	..	..
Wood-turner	..	1	..	..
Tray-makers	1	..	1	..
Brass-founders	8	..	..	.
Brass-cock-founder	..	1	..	..
Button-maker	..	1	..	..
Pearl-button-maker	1	..	..	..
Lamp-makers	1	..	..	1
Gas-light-fitter	..	..	..	1
Tea-urn-maker	1	..	..	..
Tea-pot-maker	1	..	..	..
Platers	1	..	..	1
Jeweller	1	..	..	..
Chaser	1	..	..	..
Gilt-toy-maker	1	..	..	..
Smiths	..	1	1	..
Nailer	..	..	..	1
Wire-drawer	1	..	..	..
Whip-machine-maker	1	..	..	..
Steel-toy-makers	..	1	..	1
Spectacle-frame-maker	1	..	..	..
Bit-maker	..	1	..	..
Frying-pan-maker	1	..	..	..
Chain-maker	1	..	..	..
Buckle-maker	..	..	..	1
Gimlet-maker	..	..	..	1
Spoon-maker	1	..	..	..
Total	49	13	3	11
FEMALES.				
Sempstress	..	..	1	..
Shoe-binder	1	..	..	..
Servants	2	..	1	..
Laundresses	4	2	..	..
Hucksters and Market-women	1	1	..	..
Coal-heaver	1	..	..	..
Brace-maker	1	..	..	..
Button and Plate Burnishers	1	1	..	..
Screw-makers	1	..	..	1
Stair-rod-maker	1	..	..	..
Japanner	1	..	..	..
Hook and Eye-maker	..	..	..	1
Lamp and Chandelier-makers	1	1	..	..
Plater	1	..	..	..
Nailer	..	..	..	1
Total	16	5	2	3

It is not necessary to insert some other tables shewing the periods of the year and the ages at which bronchitis, phthisis, and synochus, &c. respectively appeared. Our acquaintance with the laws of these diseases does not appear to be much advanced by them.

In the years 1833, 1834, and 1835,

there were 115 cases of small-pox, and 17 cases of it after vaccination—the latter being to the former as 1 to 6.76.

In giving a table of cases of dyspepsia, we are informed that, out of 231 cases, 42 were in males, and 189 in females. The disproportion between the sexes in this respect, is certainly not so great in the better classes. Has gin-drinking any thing to do with the indigestions of the Birmingham fair ones? A gin-shop proprietor in London tells us that for one man who drinks much of this fascinating liquid there are at least two women. In Birmingham, the bowels of the ladies would seem to be altogether out of sorts, for we find in them 130 cases of diarrhœa and six deaths, whilst the men present only 74 cases and one death—amongst the women were 13 cases of cholera, and 12 amongst the men—in the former 47 cases of constipation, in the latter 12—in the former 17 cases of hæmorrhoids, in the latter 11.

Dismissing these statistical records which appear to have been compiled with equal care and industry, we shall conclude by noticing a case or two detailed by Mr. Parsons.

Case 1.—*Medullary Sarcoma entering the Vertebral Canal.*

A married woman, æt. 28, whilst walking in her house in the latter end of February, 1828, was suddenly seized with complete loss of sensation and voluntary motion, in all the parts of the body below the middle of the chest. The fæces were ever after discharged involuntarily, and it was necessary to use the catheter daily. No disease of the spine could be detected by the most careful examination. A few days previous to her seizure, she had complained of being slightly indisposed. We need not mention the treatment, which was perfectly inefficacious.

After the lapse of some weeks a swelling became visible on the left side of the spine between the scapulæ, and this tumour, which was tense and slightly elastic under pressure, steadily, though slowly, increased in size till it became rather larger than a man's fist. It was suspected to be a mass of the medullary sarcoma, and it was not, therefore, opened. Extensive sores formed on the nates and back, but from them the patient never experienced the slightest uneasiness. She died on the 11th of June, and the spinal column was opened on the following day. The tumour was found to be of the kind suspected. It extended between the spinous processes to the right side of the spine, and passed into the spinal canal through an aperture made by the partial destruction of the posterior portion of two of the dorsal vertebræ, at which part the medulla spinalis was disorganized, being converted into a thin cream-like substance.

The preceding is, pathologically speaking, interesting. We have seen a case very similar to it, but the paralysis was gradually established.

The succeeding case of hernia is also deserving of perusal.

Case II.—*Ventral Hernia—Strangulation of the Bowel by Omentum—Gangræna Senilis in the Upper Extremity.*

In the afternoon of the 15th of December, 1835, Mr. Parsons saw this patient, a female, 63 years of age.

She complained of sickness and pain in the bowels, and said that they had not been opened for four days. On examination Mr. P. found a ventral hernia immediately above the umbilicus, and almost as large as a young infant's head; it was somewhat tender when pressed, as was also the abdomen generally. Moderately firm pressure reduced the hernia to nearly half its size, and a loud gurgling noise was heard whilst the pressure was being made, and likewise after it was discontinued, when the tumour rapidly regained its former magnitude. The hernia first appeared about ten years since, and had always been irreducible. From the patient's own account, it appeared that she had on several occasions suffered from similar attacks, which had always been relieved by purgative medicine. She had also suffered much from asthma.

Mr. P. ordered calomel and cathartic extract and clysters. She vomited the former, and the latter seemed merely to

wash out the rectum; but she kept some castor oil on the stomach.

In the evening there was more tenderness in the hernia and abdomen. The pulse was very slow and feeble. She now complained that she had lost the use of the right arm, and that this loss of power had come on, suddenly, about an hour before the visit of Mr. Parsons and his colleague, Mr. Baynham. The pulse was alike in both arms, and the affected one was warm, and the patient was able to move it freely. The patient being in a state of much prostration, and the intestine being easily returned from the sac into the abdomen, the operation was not performed. During the night she vomited frequently, the clysters returned only slightly stained with fæces, and next day the hernia was larger. There was now pulse in the right arm below the upper part of the axillary artery, where it was very feeble. The fingers and hand were cold, shrunk, and livid, and the surface of the whole of the forearm was insensible, but she had much pain in the elbow when it was bent. An operation was now out of the question. The hernia increased in size, the mortification extended above the elbow, and in the afternoon of the 18th she died.

Dissection, twenty hours after death. The brachial artery was very much contracted, appearing to be not larger than the radial; it contained a small clot, not adherent to its sides, which were healthy. The coats of the subclavian artery were also healthy, excepting immediately below the clavicle, where they were slightly diseased. There was a dirty discolouration of the skin over the hernia. In the sac was a large mass of omentum, which was healthy, but united to the sides of the sac by old adhesions. Behind this omentum, and also in the sac, was found a large fold of small intestine, distended with air, quite black and gangrenous. A finger could be readily passed by the side of the strangulated intestine, through the neck of the sac, into the abdomen; and the gangrenous piece of intestine was, without difficulty, pressed out of the sac into the belly. The intestine strangulated, was a piece of the jejunum, and the cause of the strangulation was a cord-like piece of omentum, about as thick as a finger, which extended from the abdomen into the hernial sac, where it was adherent. Between this cord-like piece, and a much larger mass of omentum, likewise passing into, and adherent to the sac, the fold of intestine had slipped, and been compressed. About six or seven inches of jejunum, on each side of the strangulated portion, were, like that, black and gangrenous, distended with flatus, and apparently quite entire; but when cut open with the scissors, the whole of this part of intestine gave way like wet paper. The intestines generally were dark-coloured, and some folds of them were adherent from the soft and recently effused lymph, but this effusion was neither large nor general.

An operation was not to be thought of in this case, which we notice on account of the gangrene which occurred in a distant part. This is not a very unfrequent circumstance, especially in old persons. It may take place however in younger individuals of bad constitutions, and especially in those addicted to intemperance. We have seen one lower extremity suddenly mortify after amputation of the mamma, in a woman between fifty and sixty years of age, who was an habitual gin-drinker. We have also seen mortification of one lower extremity, after a scalp-wound, in a man between thirty and forty years of age, who had been in the habit of drinking very large quantities of porter. We might multiply cases but these are sufficient to illustrate what we have said.

We now quit the Report of Mr. Parsons, and turn to that of Mr. Ryland. The cases to which it refers occurred between the 25th of December, 1834, and the 25th of December, 1835. The total number of out-patients treated during the year was 2173; the number of deaths was 95.

Of the 2173 cases, 860 were males, and the remaining 1313 females; of the latter 576 were married, and 141 widows.

The deaths, during the year, were 95 in number, 44 of which were males, and 51 females. The relative mortality of the two sexes, at different ages, is exhibited in the following table:—

	Males	Females	Both sexes .....
Under 1 year.	2	4	6
Between 1 and 5.	15	12	27
Between 5 and 10.	3	9	12
Between 10 and 20.	1	0	1
Between 20 and 30.	3	6	9
Between 30 and 40.	3	5	8
Between 40 and 50.	3	4	7
Between 50 and 60.	10	2	12
Between 60 and 70.	2	4	6
Between 70 and 80.	2	5	7
Total.	44	51	95

The deaths during the first ten years, amount to 45, or nearly one-half of the total number of deaths; of these 45, 22 were caused by scarlatina and the subsequent anasarca, 4 by bronchitis, 3 by small-pox, 2 by hydrocephalus, 3 by synochus, 2 by diarrhœa, and the rest by more chronic diseases.

The succeeding table exhibits the age and sex of 858 persons, affected with eight diseases of the most frequent occurrence.

	Under 10 years.		Between 10 and 20.		Between 20 and 30.		Between 30 and 40.		Between 40 and 50.		Between 50 and 60.		Above 60.		TOTAL.	
	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.
Bronchitis	37	33	2	11	9	20	9	23	11	20	2	8	2	6	72	121
Chronic bronchitis..	1	1	3	1	4	6	5	11	13	22	15	14	18	30	59	85
Constipation	1	—	3	9	3	14	2	8	2	10	4	2	1	2	16	45
Dyspepsia	—	—	3	11	5	40	10	31	2	29	2	20	4	16	26	147
Chronic gastritis ..	—	—	1	8	1	8	—	3	1	4	—	1	—	—	3	24
Rheumatism	3	—	8	12	8	16	12	9	8	10	3	8	2	2	44	57
Chron. rheumatism.	—	—	2	—	—	—	—	2	1	2	—	2	4	6	7	12
Synochus	36	27	25	21	6	5	3	5	3	6	1	1	—	2	74	67
	78	61	47	73	36	109	41	92	41	103	27	56	31	64	301	558

So far as the preceding table goes, it shews the greater prevalence of sickness amongst females than males. This is consistent with what we see in ordinary practice. But although there are more women sick, more men die, at least the statistical tables tell us so. The present Report, however, shews an excess of deaths on the female side. The following analysis of the diseases affecting persons who follow particular trades is worth looking at.

Of 38 tailors, shoe-makers, and semp-

stresses, 23 were affected with dyspepsia, 9 with rheumatism, and 6 with chronic bronchitis.

Of 31 persons engaged in making hooks and eyes, carding buttons, sticking pins, and in other sedentary occupations, 20 were affected with dyspepsia, 5 with rheumatism, and 6 with chronic bronchitis.

Of 38 domestic servants, chairwomen, and washerwomen, all of whom were females, 23 were suffering from dyspepsia and chronic gastritis, 11 from rheumatism, and 4 from chronic bronchitis.

Of 36 labourers and blacksmiths, 8 were affected with dyspepsia, 18 with rheumatism, and 10 with chronic bronchitis.

Of 32 makers of metal-buttons, gilt and steel toys, nails and screws, 14 were affected with dyspepsia, 9 with rheumatism, and 9 with chronic bronchitis.

Of 30 gun-finishers and brass-founders, who generally work in covered shops, 14 were suffering from dyspepsia, 3 from rheumatism, and 13 from chronic bronchitis. Of 19 iron-founders, who, by the nature of their occupation, are much exposed to variations of temperature, 5 were affected with dyspepsia, 8 with rheumatism, and 6 with chronic bronchitis.

Of 16 japanners and lackerers, all of whom were females, 10 suffered from dyspepsia, 2 from rheumatism, and 4 from chronic bronchitis.

Of 15 pearl-button-makers, 7 were affected with dyspepsia, 4 with rheumatism, and 4 with chronic bronchitis.

Although it is impossible accurately to arrange the preceding facts in a tabular form, we may, with advantage, divide the subjects of the three diseases into two classes, viz. into those who, by their occupations, are much exposed to changes of temperature, and into those who are sheltered from atmospheric variations, by working in covered rooms.

	Dyspepsia.	Rheumatism.	Chronic Bronchitis.	Total.
First class of cases..	26	33	18	77
Second ditto	106	39	44	189

The sedentary, as we might expect, suffer most from dyspepsia, and the females, the most sedentary, suffer from it most.

Scarlatina would seem to have prevailed much in Birmingham. It only reached the district where Mr. R. attends in August. It was at its height in October and November, and declined in December. The greatest number of cases, 25, occurred in October, and the deaths were in that month 5. All the fatal cases occurred in children under 10 years of age.

ST. THOMAS'S HOSPITAL.

ST. THOMAS'S HOSPITAL REPORTS. By JOHN F. SOUTH, Assistant Surgeon.

These Reports are still published with regularity, if not with success, and the fourth number is now before us. This same number completes a volume, the first, and, we hope, not the last that shall issue from within the walls of St. Thomas's.

In the notice which constitutes the preface to the whole work, we find the following passage.

"A detailed account of cases occurring in a hospital, to which several physicians and surgeons are attached, must be considered valuable, as affording a comparison of different modes of practice, and their results. It is, therefore, matter of surprise, that no such cases have hitherto been published by any of the large hospitals with which medical schools are connected, but have been left to the periodicals, and by them selected more with reference to rarity than general utility, to the neglect of a legitimate and ample field for professional improvement."

General positions usually receive assent, because they must be either obviously true, or plausible, for their authors to put them prominently forward. There can be no doubt that the position laid down in the passage we have quoted is correct. A precise account of the cases which occur in the great metropolitan hospitals is highly desirable, and must be useful. But it is not enough that the cases are given, they should be presented in a manner agreeable to the public. It is very often on the mode in which a thing is done, that its success or failure hinges. Whether the plan adopted in this instance is the best that could be hit on, will be decided by the event. For our own parts, we think that the cases are too detailed, too directly transferred from the ward-book to the press, and the observations of the medical officers too elementary and common-place, for the profession at large. We are not all students, at least not young students, nor do we want to pay for being told what most of us are familiar with. Such hospital reports as are calculated to go forth to the medical world, should convey broad generalizations, statistical documents, new modes of practice, or novelties in doctrine. We are far from approving of the rage for extraordinary cases, for horrible operations, for the monstrous in surgery and physic. Some of our contemporaries would seem to have imbibed the dramatic taste of France, where a play must contain a score of rapes, incests, unmentionable crimes, and murders, to be palatable.

But although the appetite for bloody operations and for rare cases is a vicious one, it does not therefore follow that *all* common cases are fit to be published. The profession must be allowed to know something, and however anxious an editor may be to point out the propriety of studying ulcers of the leg, his readers will probably evince a natural indifference on the occasion. In short, much judgment is required in selecting appropriate subjects for clinical publication, and as the public are to be pleased, the public will decide on what it likes, or does not care for. To that public, therefore, we leave its own business, and proceed to our's. We are to give a sketch of the contents of the work before us.

Those contents are—part of a case of phlebitis, and remarks on it by Dr. Roots—two cases of stone in the bladder, with a clinique by Mr. Tyrrell—a case of acute pericarditis, with remarks by Dr. Roots—a report on strangulation and mortification of hernia by Mr. Tyrrell—a case of chronic laryngitis, with remarks by Dr. Roots—three cases of medullary carcinoma, with observations by Mr. Travers—and, finally, a case of enuresis, with remarks by Dr. Roots.

The reports on pericarditis, on laryngitis, and on enuresis, have been already noticed in the present number. We shall say no more about them, but take in order the remainder as we have set them down.

I. Phlebitis.

The case that formed the subject of Dr. Roots's remarks need not be related here. Our readers are aware, that on many occasions we have directed particular attention to phlebitis, and we shall therefore only allude to such passages in Dr. Roots's observations as bear upon disputed points, or themselves admit of dispute.

1. What is the time at which severe inflammation of a vein supervenes on venesection? Dr. Roots answers that question thus:—

"You are all of you, I presume, aware that perhaps one of the most formidable conditions to treat which comes under our care, is that of acute inflammation of a vein supervening or following upon venesection. The ordinary symptoms, in the first instance, are those only which are common to inflammation. There is a pyrexial condition—a local inflammation, and that local inflammation manifested by pain, redness, heat, and swelling; and, generally speaking, when following venesection, you have perhaps, sooner or later, some purulent discharge from the puncture of the wounded vein. But speedily after these symptoms there is often a most tremendous constitutional disturbance, commencing at various periods

after the first inflammatory action. Mr. Arnott states that it may vary from two to ten or twelve days. Generally speaking, so far as my own observation goes, it has come on in from thirty-six to seventy-two hours. I have rarely seen much inflammation of the vein with much constitutional disturbance before what is called the secondary symptoms, and which are commonly of a typhoid character, have commenced, or above seventy-two hours after the first manifestation of inflammation in the part. Speedily the symptoms assume the character of typhus. There is a quick, irregular, and feeble pulse, a hot and dry skin, a loaded, brown and dry tongue, and that disturbance of the functions generally which you find in fever of a low character."

Our own experience agrees with that of Dr. Roots. We have not seen violent inflammation of a vein from venesection occur at any thing like so long an interval as twelve days. But after amputations, which may, in one sense, be considered venesection, we have seen acute phlebitis follow at a distance of a week to ten days from the operation.

2. Dr. Roots thus expresses his opinion on the vexata quæstio—the cause of the secondary purulent deposits.

"It has been supposed that these depositions of pus, and this peculiar disturbance of the system caused by inflammation of a vein, has been the result simply of pus being secreted in the veins. I do not myself believe that this is necessarily the case, because I have seen some cases of death from inflammation of veins in which there was no deposition of pus to be found in any tissue of the body, excepting perhaps some within the vein itself, and consequently the deposition of pus is not necessarily the result of pus mingling with the ordinary fluid of the body—the blood. Aware of this fact, Mr. Arnott seems to wish to infer that these secondary constitutional symptoms arise either from the admixture of pus with the blood, or, when pus is not secreted by the inner coat of the vein, from some morbid secretion, the result of inflammatory action; that morbid secretion acting very much the same, in inducing the same effects and the same symptoms as the inoculation of animal poison. There can be no question that the symptoms do very much resemble those which take place after the inoculation, or absorption of an animal poison. At present I do not myself believe it is necessarily the result of pus being secreted; but I agree with Mr. Arnott, that it is the result of some diseased, some morbid secretion, consequent on the inflamed condition of the vein mingling with the blood. At present, however, we cannot but acknowledge that we are considerably in the dark as to whether that is a sufficient explanation or not."

No doubt the question is one of extreme difficulty, and few have occasioned more discrepancies of opinion. The only chance of arriving at the truth, is by taking a wide and comprehensive view of secondary inflammations, and by continuing to make very careful dissections. It is certain that the condition of the smaller veins has not been sufficiently investigated. We would refer our readers to our notice of a pamphlet on phlebitis by Mr. Douglas, for a fuller account of the present state of the question than is given by Dr. Roots.*

3. "As far as I have been able to judge, from looking at what others have said on this subject,—I may, however, perhaps have mistaken them—it appears to me as if some entertained the idea that these depositions of pus, found either in the liver, in the lungs, in the pleural cavity, in the cellular tissue, or in the joints of the body, may be the result of pure deposition, without the previous existence of local inflammatory action. I can only state to you the result of my own experience. I have seen many instances where these deposits have taken place, some where the patient has recovered, and others where the case has terminated fatally, but never did I see a case where pus was deposited in an organ distant from the seat of the vein primarily inflamed,

* The notice of Mr. Douglas' pamphlet is contained in our last number.

without manifest symptoms of inflammation in that part."

There can be no doubt that Dr. Roots is in the right. But, although inflammation precedes the deposition, the amount of that inflammation varies. In one case, we find acute inflammation both of the lung and of the serous membrane in the vicinity of the deposite; in other cases there are scarcely any symptoms, and inspection after death shews small evidence of inflammatory action. We have seen deposites in the liver, with scarcely any vascular injection of the parenchyma around. The deposits in the subcutaneous cellular tissue are very frequently attended with very slight inflammation. Usually a very faint erythematous blush is seen upon the skin, and a puffy or œdematous swelling is occasioned by effusion of a small quantity of bloody serum in the cellular membrane. This effusion is gradually superseded by pus, and the actual inflammation is by no means proportioned to *its* quantity and character. We have seen the knee-joint filled with pus, without pain, and with the slightest injection of the synovial membrane.

On the whole, we would say that the cases of purulent deposites exhibit great varieties with respect to the quantum of inflammation. On the one hand, we see both the symptoms and the consequences of violent and extensive inflammation of a serous membrane—on the other, we see pus almost insensibly formed, with few of the phenomena, symptoms, or anatomical effects of inflammatory action.

4. The treatment of phlebitis, and that of the deposites, though sometimes similar, must frequently be different. We must remember that phlebitis is usually a primary—the deposites a secondary affection. The distinction is marked both in principle and practice.

Phlebitis, however it may commence with decided inflammatory symptoms, is yet apt to rather suddenly lead to typhoid. This is more especially the case when phlebitis is traumatic, and when it occurs in debauched or irritable persons. When it happens spontaneously, or from the influence of cold, the symptoms are commonly more acute, and the disposition to typhus less.

Phlebitis, attended with inflammatory symptoms, may be treated as other inflammations are. The prudent surgeon will feel his way, because he knows the tendency to the occurrence of low symptoms. Calomel and opium are admirable assistants to general and local depletion, and to blisters. The latter are of value in all forms of phlebitis.

That form which soon runs into typhus, traumatic phlebitis in individuals with impaired constitutions, must be managed with less active remedies. Sometimes we may stimulate, frequently we must support at the time when we are applying leeches and blisters. But do what we will, these are bad cases, and the secondary inflammations and deposites too commonly ensue.

What is to be the treatment of the latter? That is more difficult and more unfortunate still. If decided inflammatory symptoms are present, cautious antiphlogistic treatment must be had recourse to. In all cases blisters are applicable, and in some of substantial service. But these are melancholy cases, and the advent of the symptoms may generally be considered the death-warrant of the patient.

II. Stone in the Bladder.

This is a long case, and the remarks on it are longer. We shall materially abridge the former, select only some portions from the latter, and make a few observations of our own, in order to supply what appear to be omissions in the enumeration of the bad consequences of lithotomy.

Case. Richard Bax, æt. 31, a farmer's servant, was admitted Nov. 25th, 1835, with symptoms of stone in the bladder, which had existed for many years. On his admission, he complained of occasional pain in the glans penis after micturition; great irritability of the bladder, and a frequent desire to make water when the bladder contained no urine. At night the pain was more severe, and he had incontinence of urine.

Exercise produced much pain, and gave rise to distressing tenesmus. The urine was perfectly natural, and contained no mucus. He also complained of a frequent cough; the sputum was mixed with florid blood, but not to any very great extent; he had some tightness across the chest, and on applying the stethoscope to the right side, the mucous rattle could be heard, but not very distinctly. These latter symptoms were relieved by blistering the chest, and by the internal use of digitalis, with a small quantity of diluted sulphuric acid.

The health being so far restored, the operation was performed on the 11th of December in the usual manner, with the probe-pointed knife. The incision was clear and distinct, and the hæmorrhage no more than usual. The extraction of the stone was attended with difficulty, owing to its enormous size; the forceps slipped repeatedly, and the operation was necessarily protracted. A lithic acid calculus, weighing four ounces, two drachms and two scruples, and measuring three inches and a half in length, and two and a quarter in breadth, was extracted, and the patient removed to bed in an exhausted condition. An opiate was administered.

Nothing particular occurred until the 12th, at noon, when a little tenderness was found in the left iliac region. The urine passed at intervals through the wound, with small portions of "grit."* In the afternoon, there was slight coldness at times in the lower extremities. In the evening, the pulse was as frequent as 120, and the tenderness in the left iliac region remained. He was a little better next morning, but was much excited in the day of the 13th, by the cries of a patient. In the evening, he seemed much depressed.

Dec. 14, 3 a.m.—Complains of more tenderness of the abdomen towards the lower part; the integument in the perineum, and in the inguinal and iliac regions, on both sides, is covered with an erysipelatous blush, much more so on the left side; pulse 132, more irritable, possessing less volume and power. He was ordered ammonia, but during the day he appeared to get worse, and in the evening he was thought to be sinking. The ammonia and nutriment were perseveringly exhibited throughout the night, and, at 5, a.m. of the 15th, an evident improvement took place. The erysipelatous blush diminished, but the tenderness of the abdomen had increased. *Small doses of calomel and opium—ammonia to be taken only when he felt low.* During the day the tenderness of the abdomen continued, but was more exclusively felt on the left side.

On the 16th, the unfavourable symptoms had diminished still farther. The gums were slightly affected by the mercury. In the evening, he was allowed, at his own request, some porter "with the chill off," and a little ginger. On the 17th, the erysipelatous blush had quite disappeared. On the 18th, the sloughy surface of the wound in the perineum was separating. There was diarrhœa, which required astringents.

On the 19th, the tenderness in the abdomen had quite disappeared. On the 26th, a portion of slough separated from the wound, and on the 28th a larger portion, when the surface of the wound looked healthy.

After this, he became not so well. The wound was more sloughy, and some coagulum was discharged. He suffered from cough and muco-purulent expectoration, attended with a little dulness, and not very perfect respiration beneath the left clavicle. The bladder was twice injected, and a little "grit," with some coagulum, discharged. On the 13th of January, however, we find him again improving. But even when the 27th of that month had arrived, the urine passed principally or entirely through the wound. Injections of the bladder from time to time with warm water were practised, and an attempt was made to retain a catheter in the urethra and bladder.

* Grit is not the most exact term that could be selected. The reporter should have specified the nature of the sabulous matter, and stated its chemical composition.

But it occasioned too great irritation, and was abandoned. Pus now made its appearance in the urine.

On the 23d of *April*, he was discharged, having been gradually improving both in health and strength; but there was yet an opening in the perinæum, and he still passed some pus with the urine.

The remarks of Mr. Tyrrell on the preceding case, which are adapted for notice here, apply to the following points.

1. *The Mode of Operation.*

"The patient was placed upon the table in the usual position, the ankles being fastened to the wrists, and in order to keep him in a more restricted position, and to give him less opportunity of moving, the neck-ligature, or one passing from round the neck under the hams, was also applied, keeping the knees well towards the thorax. A staff of large size was passed through the urethra, and the stone was felt directly the staff entered the bladder. The difficulty was to pass the sound in so as to get it to the left side, and rather beneath the stone. I had some little trouble in doing this: for the bulk of the stone immediately stopped the extremity of the instrument when it entered the bladder; but it was necessary for me to get it in this position that I might enter the bladder freely with the proper instrument, and make a free section of the prostate.

The mode in which I then proceeded with the operation was this: the staff being held by one of my colleagues, I cut into the perinæum, beginning the incision about an inch and a quarter beneath the arch of the pubes, close to the median line or raphé; I then cut freely downwards and outwards towards my right side and the patient's left, between the tuberosity of the ischium and the anus, making the extreme of the incision, I think, rather below the posterior margin of the anus. Having thus divided the integuments and superficial fascia, and wounded a branch of the superficial perinæal artery (which did not, however, afford hæmorrhage of consequence), I then passed my finger to the upper part of the wound, felt the triangular fascia which fills up the pubic arch, and gives passage to the urethra, perforated this near the median line, and thence was led to the under part of the membranous portion of the urethra. I extended this incision by dividing the fascia freely in the direction in which I had made the external incision; and in doing this, I cut through the transversus perinæi muscle, and of course the transverse perinæal artery. I next passed my finger further into the wound, and, depressing the rectum towards the sacrum, I passed the knife to the membranous part of the urethra, and having felt the groove of the staff with the point of the knife, I ran the knife along it as far as I considered the situation of the prostate, carrying my finger on and keeping the rectum depressed to prevent injuring it. I then changed the scalpel for a long, slender beaked knife, adapted to the groove of the staff; and having passed the beak of the knife into the groove, I took the staff into my own hand, and guided by the groove, passed the knife into the bladder, its edge being directed horizontally towards the ischium, on the patient's left side, not downwards in the direction of the original wound. The staff was then given to my colleague again, and at the same time I expressed a wish that he should hold it well up, keeping it towards the arch of the pubes as much as he could, that it might be out of the way of the further steps of the operation (the knife at this time being in the bladder). I then placed my finger in the lower part of the wound upon the rectum, passed it on till I felt the prostate gland, and felt of course that portion of the knife which was within the prostate. I then cut freely in nearly in the direction of the external wound so as to divide the left lateral lobe of the prostate, and with this I might have divided some portion of the levator ani, or a few fibres might have been divided as I passed the knife in. I then carried my finger in to feel the aperture, and found it to be as free as I desired. The knife was then withdrawn, and the staff also, because I found I could easily reach the cavity of

the bladder with my finger, otherwise I should have kept the latter as a guide to the forceps. I passed in the forceps on my finger, making it the director, but the end of the forceps was obstructed in the bladder by the bulk of the stone, and the bladder contracted upon it, so that I was obliged gradually to press the forceps into the bladder, which I did above the stone, and then gradually extended the blades to overpower the contraction of the muscular coat. This I did before I attempted to seize the stone, in order to give me space to perform this part of the operation. I then grasped the stone, but the opening of the handles of the forceps showed that the extreme blades were also widely separated, so that I thought it best to make an examination first, to see whether I had got the smallest or the largest diameter of the stone. I found I had got a large diameter, I therefore separated the blades, and with the point of my finger soon succeeded in turning the stone till I got it in the smallest diameter, with the extremity towards the opening in the perinæum. The difficulty of extracting it resulted from there being such a considerable thickness of stone, that a small portion of it only was held by the blades of the forceps, and the grasp was not sufficient to hold firmly. I had come well provided, for I knew from previous examination that I had a large stone to deal with. The forceps with which I eventually succeeded are of a very ingenious construction, more especially as regards the hinge part of them, so that instead of just opening the extremities as in a common pair of scissors or forceps, when the extremity is pressed upon, as in seizing a stone, the blades are thrown nearly parallel to each other, or to such an extent as to diminish very much the separation of the external points. This construction of the forceps enables the blades to lay hold or come in contact with a much larger portion of the stone itself; they are also very rough on the inner surface of the blades. I eventually succeeded in extracting the stone with them. The mode in which the forceps frequently slipped was the best proof that I was not using any extreme violence, for if I had, from the position in which I stood, I should, upon the forceps quitting the stone, have gone back. But I had a perfect command of myself, because the force I was using was of moderate extent, the object being to overcome the resistance of the soft parts, rather than forcibly to tear or separate them. The stone was thus extracted."

Mr. Tyrrell is partial to this mode of operation, because he has been very successful with it. He has operated forty-one times, and only lost one patient, which was in consequence of erysipelas. This is a reason which is always satisfactory to the individual. His own success is his best encouragement, and he is naturally averse to change a procedure, which has been to him a fortunate one. Our own opinion is, that the kind of instrument that he employs signifies comparatively little to the lithotomist, provided he is expert, and habituated to its use. We see operators boasting of success with instruments of the most opposite construction—the knife—the gorget—and the bistoire cachée.

It has long been a question, whether it is safer to divide the prostate and neck of the bladder freely, for the extraction of a stone of some dimensions —or to tear those parts in preference to their division. There is much to be said on both sides, and surgeons of great experience are ranged on either. Mr. Tyrrell is against laceration.

"It has been said, and perhaps with some reason, that some of the most successful operators have not used a gorget with a cutting extremity so large as those generally in use, so that the opening made in the bladder must have been more limited, and in the extraction of a large stone the wound must have been principally of a lacerated character, especially in the prostate. But I should say, that according to the force necessary in extracting a stone, so, generally, in my own experience, has been the severity of the after-symptoms."

2. Dangers of the Operation.

"The dangers of the operation in

entering the bladder I consider to be twofold. The first, in my own opinion, consists in dividing the artery of the bulb. The transverse artery is necessarily divided; but if the incision be commenced in the perinæum so high up as to wound the bulb, or the commencement of the corpus spongiosum, the artery of the bulb is also wounded. The operator sometimes gets too near the ramus of the ischium in incising, and if he do, he cuts the artery of the bulb shortly after it passes from the pudic artery. The direction in most of the works upon lithotomy is, that the operator is to cut between the accelerator urinæ of the bulb and the crus penis, but he has no occasion to go so high up: if he do, he is very likely to wound the artery of the bulb at so short a distance from the trunk, that hæmorrhage difficult to control may take place. This, then, is the first danger, and it may be avoided by commencing the incision an inch and a quarter below the pubes in the adult, and at a comparative distance, according to the age of the patient below that period of life.

The next danger is from wounding the rectum. If the operator, in cutting from the membranous part of the urethra to divide the soft textures, cuts too much down with the scalpel, the rectum is pretty sure to be wounded. In dividing the soft parts, he can cut outwards, and a little downwards, towards the tuberosity of the ischium, and at the same time keep the finger pressed on the rectum to protect it.

These are the only dangers, I think, from the operation—all others, I believe, are more imaginary than real. With regard to wounding the internal pudic artery, if you look at the instances in the dissecting-room, in the dead-house, and in dried preparations, you will hardly find a case in which it could be cut fairly in lithotomy. It passes behind the ramus of the ischium, protected by it, and could only be injured by the operator cutting round and drawing the knife from within to without. Independently of these circumstances, injury to the artery of the bulb, and injury to the rectum, I consider the operation of lithotomy, so far as regards the opening of the bladder, so perfectly simple, that there is hardly an operation performed on the human subject that requires perhaps less skill when the structures are well known."

Division of the artery of the bulb is, no doubt, a bad thing, but no doubt, also, it is very frequently committed, without injurious consequences supervening. The directions with respect to the spot in which the urethra is to be cut into, are sufficiently precise—the point in which the urethra is opened is not quite so constant nor exact. Surgeons are told to cut into the staff's groove in the membranous part of the urethra. In a deep perinæum, this is not always so easy; at all events we have found, on examining the parts both after the operation on the living body and the dead, the bulb, and of course its artery, more or less divided. We have seen this in more than one instance, where no hæmorrhage of any importance had occurred. It is advisable, on all accounts, to avoid wounding the bulb; but, no doubt, it often *is* wounded without material mischief.

Mr. Tyrrell adverts to another source of hæmorrhage—notorious, from the death of a patient who was operated on at the Middlesex Hospital, by a very worthy gentleman and excellent anatomist—the late Mr. John Shaw.

"There is sometimes a peculiarity in the distribution of the arteries to the penis, a circumstance noticed first by Tiedemann, and delineated in his plates of the arteries. The dorsal artery of the penis, in that instance, instead of passing as a branch of the internal pudic, was derived from the internal iliac, passed by the side of the bladder, by the side of the prostate, by the side of the membranous part of the urethra, then beneath the arch of the pubes, and onwards to form the dorsal vessel, as when derived from the pudic artery. It is perhaps curious that the first instance of hæmorrhage from a division of this kind occurred to a gentleman who, in a work he published on anatomy, made some severe strictures on losing patients from hæmorrhage in lithotomy. I am alluding to one who is now no more, and perhaps ought to

regard the maxim *de mortuis nil nisi bonum*; but I am not speaking in disparagement of this gentleman, but as a matter of utility for your own caution. After publishing strictures upon hæmorrhage connected with lithotomy, the first case that he operated upon, when he became connected with a public hospital, he lost from hæmorrhage. Upon dissection this variety was found, but although he had published on the subject of the operation, he was ignorant of the variety existing at all, notwithstanding the plates of Tiedemann had been presented to the world some years; access, however, to them had not been generally available in this country."

The following are Mr. Tyrrell's recommendations with respect to the treatment of hæmorrhage.

"The hemorrhage, in the ordinary performance of the operation, is generally checked by keeping the patient a little cool, and using moderate pressure. If there should be hemorrhage from such an artery as that of the bulb, I think it would be best at an early period to have recourse to the application of the cautery, if you found the application of a ligature could not be made."

Mr. Tyrrell takes no notice of what we believe to be a more frequent source of bleeding than either of those already mentioned. We allude to hæmorrhage from the vesical plexus of veins in old persons. These veins become at times exceedingly enlarged—lying on the prostate, they must be necessarily more or less divided—and, occasionally, they give rise to a serious, and even to a fatal hæmorrhage. There are few surgeons in extensive practice, who have not met with cases of this nature. We heard the other day of an instance, in which the crushing of a small calculus in the bladder proved mortal, in consequence of bleeding from enlarged veins in the mucous membrane.

Wound of the rectum in lithotomy is not so unfrequent as perhaps might be supposed. We have seen the bowel cut several times, but in every instance the wound healed, without the occurrence of recto-vesical, or recto-urethral fistula.

Mr. Tyrrell does not rank among the dangers of the operation, those accidents that have at times been witnessed. The gorget has transfixed both walls of the bladder—the bladder has been pushed before that instrument, and severed from the urethra—the knife or gorget has been carried between the bas-fond of the bladder and the rectum. Probably he deems these mere results of ignorance, or awkwardness, or trepidation; and probably, also, he is right.

3. *Difficulties of the Operation.*

"What, then, are the difficulties which may be said to arise in the operation of lithotomy? I should say that the principal one in the present instance was, from there being a large stone, and the drawing of this through the limited space afforded by the aperture in perinæo. I had ascertained pretty well the size of the stone before the operation; I gave it as my opinion that it was about the size of a large hen's egg, but it was perhaps altogether rather larger than this. I had no doubt I could, without the use of extreme force, get the stone through the common aperture made in the lateral operation. This would have been with more ease accomplished had I been furnished perhaps with instruments of a different kind. The forceps with which I at length succeeded had the peculiarity I have already mentioned with regard to the hinge, so that the blades are thrown more parallel to each other when the object is grasped by their extremities. A suggestion of a useful kind was made to me some few days after the operation. Having an opportunity of meeting Mr. Liston, and speaking to him about the operation, and the difficulty I had from the slipping of the forceps from the stone, he asked me whether I had used forceps, the blades of which were lined with linen. The suggestion is an extremely good one, as the hold would be much more firm than with a metallic substance. The difficulty then arose from the extraction of the stone through the aperture, and I should urge it strongly upon you not to use any great violence, but to keep up a moderate degree of pres-

sure when you get a firm hold of the stone, and to allow the parts to become relaxed rather than lacerate them by the force of extraction.

Another difficulty met with in my own practice has been from the stone being extremely small. You observe that the extremities of the forceps do not quite touch, and this is for the purpose of avoiding nipping the mucous membrane so as to commit injury; and, also, the blades themselves do not approximate by a considerable space. In operating on a child some years ago, the stone was so small that when I had got it in the blades of the forceps it slipped out again through the aperture, and I was obliged eventually to take a small pair of dressing forceps, the blades of which fitted to each other, before I could seize the stone so as to draw it out, protracting the operation, but not increasing the risk.*

Another inconvenience I have met with has been when the stone was exceedingly soft, so that upon application with moderate force of the forceps it has crumbled down like half-dried mortar, and I have been obliged to extract it piece-meal afterwards, to use a scoop, (an instrument for the purpose of taking out small fragments of that kind,) and afterwards to inject the bladder, so as to get rid of finer portions. In a case of this kind, the operator should carefully search every portion of the bladder, to ascertain whether it is completely emptied of the foreign matter. In order to do this, having met with difficulty in the case to which I have alluded, I have had a sound made with a rather bulbous extremity, by which I can detect a fragment better than with the common instrument. If you leave a small fragment behind, the mischief is, that it forms a nucleus for further incrustation or deposit.

Another instance of difficulty which occurred, not in my own practice, but in a case where I was asked to be present at the operation, arose from the stone being encysted. This has always led me to examine a patient several times before an operation, to be satisfied that this circumstance did not exist before I determined upon operating. An elderly gentleman was the subject of stone, the symptoms were not severe, the stone was readily detected by introducing a sound into the bladder, but I learnt after the operation that it was uniformly felt at the same spot, and in consequence of this the detection of the stone was easy. The operation was decided upon, and when the forceps were introduced through the wound into the bladder, the extremity of the stone could be felt, but it could not be grasped, the greater part of it being enclosed in a cyst, and presenting a small aperture through which only a small portion of the stone could be brought in contact with the forceps. After trying various unsuccessful means to get hold of it, the operation was necessarily abandoned without extracting the stone, because great mischief would have ensued by the further continuation of such attempts."

The circumstance of always feeling the stone in the same situation is not conclusive evidence of its being encysted. We lately had an old gentleman under our care in whom we always ascertained the presence of a calculus in the bas-fond of the bladder, on the right side, immediately behind the prostate. On the performance of the operation he was found to have several calculi, not one of which was encysted.

4. *Dangerous Consequences of the Operation.*

Mr. Tyrrell's remarks on this head are incomplete. After attending to hæmorrhage, he sums up the causes of death in this way.

"Another, and perhaps more remote circumstance is, retention of urine, and in some few instances, perhaps four or five in my own practice, I have had, in the course of the afternoon following the operation, to pass in a catheter

* Since these remarks were made I have operated on a young child, and the stone, being very small, lodged between two folds of the bladder, from whence I was obliged to move it by my finger before I could seize it with forceps. The child is quite well.

through the upper part of the wound, to prevent the patient becoming disturbed by the accumulation of water in the bladder. If the stone is of moderate size, from the cut being clean, and no force used in the extraction, there is no contusion, and the parts become nearly agglutinated in a few hours by the deposition of adhesive matter; but still the irregularity produced in part of the urethra prevents the urine from taking its ordinary course. The same operator to whom I just now alluded, (Mr. Liston,) invariably after the operation passes a flexible gum tube into the wound, and allows it to remain for several hours, so that as the urine enters the bladder it escapes by the tube. I do not see much utility in this proceeding if you watch the patient. If the urine do not flow readily, no additional disturbance is produced by introducing a female or flexible catheter through the upper part of the wound; whereas, I should think in some instances, the presence of the extraneous matter might induce suffering.

Further than this, we have inflammation attacking the cellular tissue about the wound, and I believe it occurs most frequently where there has been considerable force or violence employed. And, again, in a few instances, we have peritonitis supervening."

As diffuse cellular inflammation is decidedly the most frequent cause of death after lithotomy, as it is an affection of which no very good description has been given, and as many surgeons and most pupils are but imperfectly acquainted with its characters, progress, and treatment, it would probably have been well had Mr. Tyrrell touched on it more fully. It deserves more than a mere mention.

Three other causes of death are not hinted at.

The first is circumscribed abscess of the pelvis. We have seen three instances of death from this after lithotomy, and a lady in whom we divided the sphincter ani, for ulcer of the rectum, died of it very lately.

The second is inflammation of the vesical veins. We have once seen this prove fatal, with purulent deposites in the joints, and several cases of the sort have been published.

The third is collapse, without any obvious organic lesion. We have not seen such a case ourselves, but we have heard of one. The patient was a boy.

We merely enumerate the preceding causes of death after the operation, in order that Mr. Tyrrell's observations may be rendered more complete. We are aware that other serious effects, of an indirect description, are observed in some rare cases. But these are rather consequences of *an* operation, than *of the* operation. On the whole, it may be said that the most pressing immediate danger from the operation is hæmorrhage—the most fatal consequence, cellular inflammation. Hæmorrhage must always be regarded with a jealous eye—not merely on its own account, but for the disturbance to the cellular tissue that it creates, and the greater tendency remarked after it to diffuse or circumscribed cellular inflammation. Secondary hæmorrhage, we should observe, has been witnessed, and has even, we believe, proved fatal.

We cannot compliment the reporter of the case on the manner in which he has related it. The details are extremely prolix, yet, withal, imperfect. The state of the urine is very inadequately described, and the composition of the sabulous matter, as we observed, is not hinted at. As the stone is stated to have been lithic acid, we may suppose that the "grit" was the same. The reporter being a pupil, will, we have no doubt, take the hint in good part.

III. MEDULLARY CARCINOMA.

Three cases of this affection are detailed. The first is interesting on account of the extensive diffusion of the disease, and its co-existence with melanoid and hæmatoid tubercles. The second is interesting also, from the tumor being developed subsequently to repeated venesection. The third case is an instance of lupus in early life and medullary carcinoma afterwards.

Case 1. All that it is necessary to state

of the particulars of this case are the following. The patient was 64 years of age—the disease commenced as a small, hard, moveable tumor under the skin of the outer side of the forearm, rather more than four years before his death—the tumor fungated and bled—two years after its commencement it was removed by ligature—a fungoid excrescence then sprang up in the cicatrix—and finally various tumors appeared on the body—nearly three months before his death, he had hemiplegia of the right side, which was relieved—a fortnight before his death he had an attack of complete insensibility and paralysis. The principal interest belonging to the case is connected with the universality of the disease, disclosed upon dissection.

Dissection. The tumors described in the narrative of the case, situated in the subcutaneous cellular tissue, were found to be encysted, and lobulated by the presence of secondary cysts, as was proved by section; the contents were of the consistence of cheese; in some the cyst was distinct, in others not; and in some, vessels were very perceptible. They possessed very satisfactorily the well-known characters described by authors under the several terms cephaloid, melanoid, and hæmatoid tubercles. For the most part each might be classed under one of these heads; though some sections appeared to partake of the character of each.

Head.—There were several tumors in different parts of the brain, varying in size from that of a pin's-head to that of a large walnut, and they were all surrounded by cysts more or less perfect. One of the largest was situated in the left corpus striatum, projecting into the lateral ventricle. Another occupied the greater part of the posterior portion of the left thalamus opticus, and extended into the posterior lobe of the brain. These tumors were solid, and firmer than the cerebral substance. Upon section they presented the appearance of a clot of blood, in part deprived of its colouring principle; some were firm and striated, others were traversed by vessels. Some, as the two following, contained a fluid in the centre resembling grumous blood; viz., one in the left middle, and one in the right posterior lobe of the hemisphere: the substance of the brain contiguous to the cysts was softened; in other parts it was quite healthy.

Chest.—The large tumors under the clavicles encroached very considerably upon the chest: the osseous structure of each second rib was destroyed, excepting their spinal extremities, where a few scales of bone remained. Upon making a longitudinal section in one of these, a succession of smaller tumors were exposed, of the mixed characters of the cephaloid, hæmatoid, melanoid, and white tubercle; here this appearance was strongly marked. The substance of the upper part of the sternum and the right clavicle were softened, and infiltrated with a cheesy substance. In the left pleura pulmonalis, at its apex, was a cartilaginous deposite, about two inches in length and half an inch in thickness. In the muscular substance of the heart were three tumors about the size of peas, and there was an irregular one projecting into the cavity of the right ventricle.

Abdomen.—Two medullary tumors, the size of walnuts, were observed in the spleen; several in the omentum, and one, which was ulcerated, in the mucous membrane of the ilium: the left renal capsule was very much enlarged, and converted into a soft medullary substance; and there were two small hæmatoid tumors in the right kidney.

Case 2. A man, æt. 52, admitted June 20, 1834. Fifteen years ago, says the report, having received an injury to the head, he was blooded three times successively from one vein in the right arm; from this period he dates the formation of a small subcutaneous tumour at the bend of the elbow, which remained stationary till within the last four months, when it began suddenly to enlarge, and has now acquired an extraordinary bulk. It extends from the insertion of the coraco-brachialis muscle to the fossa below the bend of the elbow-joint; its lateral dimensions twenty-four inches, its form nearly

spherical, and traversed by large veins, having four or five discoloured undulatory prominences. Some enlargement and induration of parts in the axilla—several small tumors felt in the subcutaneous cellular tissue of the abdominal parietes. The patient had cough, spat blood and muco-purulent matter, and had pain in the chest. On the 26th he had an apoplectic seizure. On the 27th he died.

Dissection. A very large apoplectic cyst in the left hemisphere of the brain—the cerebral substance softened. A curdy tuberculous deposite in various parts of the lungs. The spleen much enlarged, and converted into a semi-fluid mass, of the colour and consistence of grumous blood, mixed with soft whitish tuberculous deposit.

The tumor itself seemed of uniform lardaceous structure, little organized, and of firm consistence. Several similar deposites were seated in the intermuscular spaces of the left arm.

Case 3. A gardener, aged 31, had had lupus in early life, indeed until the age of 20. Fourteen months prior to his death, the cancerous disease commenced with an abrasion in the left groin. Having thus commenced, it extended, fungated, and finally acquired such dimensions and characters as the following:—it reached from about three inches above Poupart's ligament to the cleft of the nates; the centre gapes, with broadly everted margin, forming a large cavity; the granulations have a fungoid character, and are covered with a sanious ichor, very copious and fetid. He then died.

Dissection. The carcinomatous mass, of an irregular circumference, entirely filled the left iliac fossa. No vestige of psoas or iliacus muscle could any where be detected upon section. A compact, tough, inorganized substance of a yellow white colour presented itself, studded with tubercles of an oval shape, varying in consistency, from a hard cartilaginous matter to the softened state of a scrofulous tubercle. The liver was soft and granulated, and three tubercles of small size were found in it, originating apparently at its surface, and dipping down into its substance.

Mr. Travers makes some interesting clinical remarks upon these cases.—They are calculated to display the dubious and mysterious consanguinity between medullary carcinoma and scrofula.

IV. MORTIFICATION OF HERNIA.

A case of this sort is related at some length. The patient died, but no examination was permitted, and so much uncertainty hangs in consequence on its actual characters and nature, that we do not think it necessary to offer the particulars.

A clinical lecture on the case was given by Mr. Tyrrell, the surgeon under whose care it was. The lecture, however, is chiefly calculated to explain minute shades of symptoms or of treatment, and to offer some ingenious conjectures on the actual cause of death. The only passage we shall quote, is one which bears on a question of general interest and importance.

"I should say," says Mr. Tyrrell, in remarking further upon this case, "that there are no cases that present so much variety as those of hernia. We find regular symptoms noted in books upon this subject, and usually detailed in general lectures, which are to guide the student when he enters upon practice, but if he relies upon these statements, he will often find himself woefully puzzled at the outset. It is not unfrequently the case that, instead of constipation, the bowels are relieved, and freely relieved. A case of this kind occurred some few years ago in this hospital. A man advanced in life was admitted, having a femoral hernia about the size of an egg. The dresser attempted its reduction by the use of the warm bath and taxis, and rendered the tumour less tense. The history of the case was not sufficiently accurate for us to know whether it had been reducible or not, but the tumour being reduced, the dresser administered some purgative before I was sent to. I considered that the plan adopted had been judicious, but that an injection should

be used, and I desired, in case the injection brought away fæces, that he should have another purgative by the mouth; he did have it, and in the night there were three or four copious evacuations. The next morning, being anxious about the case, I came down early, and found the tumour in the same condition, but rather more tender. I decided, from the obscure history of the case, upon operating, and found a perfect portion of the small intestine, the entire calibre of which was girt by a very firm stricture, and it was evident that no fæculent matter had passed the stricture. All that we could say with regard to the evacuation of the bowels was, that the lower intestine had been much loaded at the time the hernia was strangulated, and that either the injection stimulated it to act, not once only, but three or four times, or that the sympathetic influence of the purgative taken into the stomach had produced an action on the lower part of the bowels, which might be considered not improbable. This is one out of several cases where I have known a free action of the bowel, although there has been perfect strangulation of the intestine, even including the whole calibre of the gut.

Again, you will find that patients will evince but little tenderness of the tumour; sometimes the symptoms will be such that your attention would hardly be directed to the hernia, unless you knew that it was your duty, under all circumstances, to make an examination of a tumour of this kind. There is sometimes so little pain in the tumour, and such slightly marked symptoms, that the symptoms of strangulated hernia are hardly present, or are not so well marked as you find them laid down in works on the subject, and in general lectures.

I cannot put you too much on your guard with respect to the examination of the history of the tumour before you decide on an operation of this kind, and even before you attempt the application of the taxis."

All this is very sensible, straight-forward advice, and the young surgeon should lay it carefully to heart. There are, indeed, no cases in which caution is more imperatively requisite than it is in the diagnosis and treatment of hernia. No two cases of this disease are exactly alike, and in no complaint has ignorance or precipitancy committed more grave or more palpable blunders.

This completes the account of the present number of the St. Thomas's Hospital Reports.* We trust that both the medical officers, the editor, and the reporters, will continue to do their best to maintain the scientific reputation of a hospital which boasts of the names of Cheselden, Mead, Cline, Crawford, and others almost as illustrious as they. We will do our best to disseminate the facts they publish.

Belfast Fever Hospital.

Statistics of Fever.†

Dr. Mateer very properly observes, that statistical investigations have begun to attract attention, and to meet encouragement. Many facts have been already made out by means of these extensive numerical data, and some errors of long standing, and of wide prevalence, have been dispelled.

Dr. Mateer is physician to the Belfast Fever Hospital, and he has come forward with the facts, which his situation and his zeal have enabled him to collect, and led him to publish. Every hospital affords materials for similar observation and similar collections of results. Dr. Mateer makes the following suggestion.

"In all such institutions, records are kept of the age, trade, residence, habits, &c., of the cases admitted into them; and were these arranged in a tabular form, much useful information might be elicited from them. The task of reduction could easily be committed

* Notices of the Reports on Rheumatic Pericarditis—Chronic Laryngitis and Enuresis, will be found in other parts of the Periscope of our present number.

† Dublin Journal, September, 1836.

to intelligent patients, confined with trifling ailments, under the superintendance of their medical attendant. In this way the present tables were procured. They detail all the particulars regarding fever that could rightly be ascertained, or were worth knowing: such as, for example, the amount of deaths and admissions, ratio of mortality, number of cases from each street or locality, of each trade, and the duration of illness both before and after admission."

We shall lay before our readers such conclusions as seem to enlarge or correct our views of fever, omitting some observations of a more speculative character on its nature, causes, or treatment.

After remarking that the distinctions of exciting and predisposing causes of fever are not always tenable, Dr. M. goes on to state, that contagion and atmospheric influence may be classed under the head of exciting causes. Epidemic fever is commonly attributed to the operation and influence of altered states of atmosphere. What those altered states are, it is always difficult, perhaps impossible, to say. They would seem to be independent, or nearly so, of the temperature of seasons. During the eighteen years, ending May, 1835, there were admitted into the fever hospital 5078 cases during Summer; and 4771 in Winter; making a difference of only 307 for such a lengthened period. The following table of quarterly admissions shows the number for each season, and also the general mortality.

From May, 1818, to May, 1835.	Admitted.			Died.			General Mortality for each Season.
	Males.	Females.	Total.	Males.	Females.	Total.	
1st quart. Summer,	1191	1405	2596	82	66	148	1 to 17½ for Summer.
2nd do. Autumn,	1157	1325	2482	79	77	156	1 to 15¾ for Autumn.
3d do. Winter,	1081	1278	2359	79	89	168	1 to 14¼ for Winter.
4th do. Spring,	1191	1221	2412	100	76	176	1 to 13⅝ for Spring.
Total Amount,	4620	5229	9848*	340	308	648	

Dr. Mateer alludes to the operation of contagion as a cause of fever, and the table we shall next copy purposes to afford an estimate of its effects.—Our author notices, but not with approbation, the disposition which exists to discountenance the idea of contagion, and to attribute to other influences, what has been generally considered to result from it.

"Any one, however, who has attended hospitals, must have found that such a supposition is quite groundless. He will have observed patients being brought in a short time after their friends or acquaintances, or that they are followed by one or more of the remaining members of the family to which they belonged. A table has been drawn up from the registry, with the design of throwing light on this matter. In this table are marked the number of cases which may have had any communication, either by residence in the same house or by belonging to the same family. It has been supposed that when two or more individuals have been brought from the same house or family, the disease has originated in them from contagion, there being communication

* This sum includes moribund cases and relapses, amounting to 252, which are not included in the other calculations.

in these instances, and consequently exposure to infection. The remainder are set down as single cases, or those where no contagion could be traced; though it is obvious, from the way in which our calculations on this point are framed, that in many of these this cause may have been in operation, so that the subjoined table does not adduce all the truth in favour of contagion."

This argument is singularly weak, and constitutes a direct petitio principii. If we are to admit that facility of communication is sufficient proof of contagion, then there is no epidemic complaint which is not contagious. Common catarrh must immediately be regarded as a very contagious malady. It is obvious that any general influence, as that, for example, of the atmosphere, will be likely, cæteris paribus, to operate similarly on persons of similar constitutions, placed under similar circumstances. If one member of a family is attacked with fever, itself the produce of certain atmospheric conditions, the other members of that family are surely more susceptible of the same morbid action than the members of other families, or solitary individuals would be. The ground that Dr. Mateer treads on is dangerous and hollow:—

——— Incedit per ignes
Suppositos cineri doloso.

We cannot, therefore, lay much stress on the table we are about to insert. The principal point which it seems to establish, is the influence of variability of season. The years 1826, 1828, and 1831, are stated to have been very changeable, and we find that in these the number of admissions is nearly double that of the years preceding them. This, however, is not the case with the year 1828, while 1818, of which the variability is not noticed, exceeded all its successors in the number of its victims.

Date from May ,, to May	Number of Persons in Families.	Number of Families.	Average No. of Persons to each Family.	Single Cases.	Total.
1818 ,, 1819	905	215	4 13/43	353	1258
1819 ,, 1820	590	95	6 1/19	90	680
1820 ,, 1821	680	132	5 11/33	47	727
1821 ,, 1822	210	65	3 5/13	49	259
1822 ,, 1823	265	86	3 1/2	40	305
1823 ,, 1824	185	62	2 61/62	36	211
1824 ,, 1825	305	95	3 10/19	103	408
1825 ,, 1826	205	92	2 7/46	107	312
1826 ,, 1827	701	175	4 1/175	157	858
1827 ,, 1828	560	138	3 1/23	196	856
1828 ,, 1829	355	101	3 52/101	126	481
1829 ,, 1830	130	67	2	25	215
1830 ,, 1831	340	78	4 1/39	228	568
1831 ,, 1832	705	188	3 141/188	304	1009
1832 ,, 1833	360	75	4 11/75	177	537
1833 ,, 1834	315	72	4 3/8	162	477
1834 ,, 1835	285	120	3 3/8	252	637
Total	7246	1856	3	2342	9588

Speedy removal to hospitals is insisted on. It would seem that the danger of a fatal issue is in the ratio to the length of time that the sick remain in

their houses previous to admission. This, we say, would appear to be proved by the following table.

Day when admitted.	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th	14th	Total
Number of cases....	544	1081	1669	1106	927	594	1067	302	539	187	247	167	750	9588
Number of deaths .	13	41	82	52	39	40	112	30	57	13	25	7	150	664
Ratio of mortality per cent.....	2	3	4	4	4	6	11	10	10	6	10	4	20	

Fractional numbers omitted.

But, probably, a source of fallacy sticks to this calculation. We must recollect that only the very bad cases are taken to a hospital late, while early admissions must necessarily be more indiscriminate. If a patient is kept at home by his friends for the first week, they are not likely to send him to hospital in the second, if he has an apparent chance of doing well. The late cases are, therefore, more picked and worse cases than the early ones, an element to be received into our calculations.

The gross mortality of fever is naturally a subject of rational curiosity. It varies every year in the hospital, and it varies out of it. Probably extensive series of years would not display great differences. The general mortality for the eighteen years ending May, 1835, is $6\frac{70}{1189}$ per cent. or as 1 to $15\frac{14}{141}$; deducting moribund cases, it would be only as 1 to $18\frac{81}{574}$.

"The predisposing causes of fever are various, such as age, trade, vicious habits of living, innutritious diet, bad ventilation. The most uniform results obtained from any part of our calculations are those in reference to the influence that *age* has on the number and mortality of fever cases. The following condensed table will illustrate this. It includes the period between Sept. 1817, and May, 1835, during which there have been admitted at the age of from—

	Cases.	Died.	
1 to 5 ..	301 ..	12	Admitted, 5214;
5 to 10 ..	979 ..	13	died, 151; being
10 to 15 ..	1709 ..	36	a mortality of
15 to 20 ..	2225 ..	90	$2\frac{115}{1507}$ per cent.
20 to 25 ..	1884 ..	74	Admitted, 3747;
25 to 30 ..	1638 ..	81	died 301; or a
30 to 35 ..	627 ..	70	mortality of $8\frac{143}{1247}$
35 to 40 ..	553 ..	76	per cent.
40 to 45 ..	418 ..	82	Admitted, 1043;
45 to 50 ..	302 ..	60	died 216; or a
50 to 55 ..	188 ..	45	mortality of $20\frac{740}{1043}$
55 to 60 ..	135 ..	29	per cent.
60 to 65 ..	86 ..	31	Admitted, 171;
65 to 70 ..	36 ..	12	died, 60; being
70 to 75 ..	25 ..	11	a mortality of
75 to 80 ..	24 ..	6	$35\frac{11}{171}$ per cent.

Thus, the susceptibility to fever decreases with the increase of age, whilst its comparative fatality increases. Decrease of frequency and increase of mortality are, therefore, in an inverse ratio. This seems to be clearly made out, and is a broad generalization of some consequence.

Calculations have been made of the number of fever cases admitted from each lane, street, or "entry" in Belfast. As a general rule, the streets inhabited by the poorer classes were most rife in the disease. But, what is curious, one street called Carrickhill, and its continuation Millfield, with the adjoining lanes and entries, are found to have supplied nearly three-fifths of the whole amount; and yet these are by no means the poorest or worst-ventilated parts of the town. The circumstance would seem to be caused by a deficiency in the proper supply of water to this district, from its occupying a higher elevation than the source whence the rest of the town is supplied. Water is procured in other ways, but with difficulty, and not in the quantities they would otherwise have it. The consequences are want of cleanliness and bad sewerage, so that decayed animal and vegetable matter of all kinds, not being carried off by a current of water in the usual way, accumulate, and so generate miasmata. The atmosphere of such places may in this way be as much contaminated as by improper ventilation. Surely this offers the very strongest argument against Dr. Mateer's own view of the extensive operation of contagion. Why should this be all-powerful in one particular locality? Why should it not do its worst, where poverty and bad ventilation flourish? Why, but that, on the large scale, other causes of fever are far more potent than contagion.

The influence of trade is next considered. It is difficult to arrive at accurate conclusions on this head. For, first, the ratio of numbers in any trade, compared to the whole population, should be made out; secondly, the ratio of each to the other; and, thirdly, the results of private as well as of public practice should be obtained. So far as Dr. Mateer's observations extend, they are thus embodied:—In the 18 years already mentioned, there were admitted into the Belfast Fever Hospital—

Basket-makers	2
Brush-makers	15
Butchers	39
Blacksmiths	51
Blue-dyers	26
Bricklayers	53
Brass-founders	7
Bonnet-makers	30
Bleachers	35
Bakers	35
Brick-makers	25
Bookbinders	12
Barbers	6
Cotton-spinners	464
Chandlers	10
Cutlers	8
Coopers	59
Cotton-printers	49
Cotton-warpers	10
Carpenters	76
Curriers	12
Constabulary-police	9
Chimney-sweepers	8
Carmen	34
Coach-makers	10
Copper-smiths	12
Clerks	31
Cabinet-makers	12
Dealers	218
Dress-makers	58
Flax-dressers	26
Flowerers	88
Founderers	10
Gardeners	11
Glovers	7
Glass-cutters	6
Glass-blowers	10
Hatters	5
Hosiers	11
Labourers	878
Lightermen	13
Lamp-lighters	4
Mariners	131
Musicians	23
Mantua-makers	11
Mendicants	16
Nailers	2
Painters	22
Police-watchmen	9
Printers	18

Pilots	16
Paper-makers	4
Pork-cutters	10
Pensioners	8
Robers	31
Ragmen	6
Shoemakers	234
Servants	1106
Sail-makers	4
Sempstresses	116
Sawyers	50
Stonecutters	25
Saddlers	11
Stucco-workers	15
Students	14
Ship-carpenters	16
Schoolmasters	20
Staymakers	6
Tobacco-spinners	35
Tanners	6
Tailors	79
Tinsmiths	12
Upholsterers	5
Weavers	716
Whitesmiths	10
Washerwomen	40
Watch-makers	4
Turners	8
Various	66
Total amount of those occupied in trades	5406

A glance at the preceding table seems to shew, that the persons most prone to fever are placed under circumstances almost diametrically opposed;—for, on the one side, we see labourers, mariners, and dealers, persons more or less exposed to vicissitudes of temperature: and, on the other, are ranged cotton-spinners, shoemakers, sempstresses, and weavers, individuals of sedentary habits, and exposed to anxiety from fluctuations in the labour market. Servants suffer in great numbers. We scarcely know in what category to place Irish servants. Were they in London, we should put them in the niche of idle, gin-drinking people, who eat far more than they work.

"Sex would seem to predispose to fever. Females are more susceptible of the disease than males. Thus, of the total number admitted from May, 1818, to May, 1835, inclusive, 5130 we find to have been females, and 4458 males; being a superiority of the former over the latter of 672. This may be accounted for from the circumstance of females being the more numerous part of the population, to their more delicate frame of body, which unfits them for enduring hardships, and particularly also to the custom (almost entirely confined to females of the poorer classes) of going abroad barefooted, by which they are exposed to the rigour and vicissitudes of the seasons. But while the susceptibility to fever is greater with females, the mortality is found to have been less with them than with the males. Taking the general ratio of recoveries to deaths, in the admissions of each sex for the period already referred to, we find the recoveries with males to be as 13$\frac{11}{12}$ to 1, while with females they are as 16$\frac{11}{12}$ to 1."

The duration of fever is another interesting subject of inquiry. Do exact modern investigations support ancient dogmatism on this head? Has fever really a definite course—has it actually critical days? The following are the contributions to a reply, supplied by the industrious observation of our author. Making allowance for the variations occasioned by peculiarity of habit, mode of living, and so forth, perhaps this may be found an approximation to the truth.

"From the general table annexed to this paper, it will be found, that the average time for each patient to remain in the hospital under the disease is about twenty-two days; and this calculation is made from 11209 patients. By the table that details the number of cases admitted on each day of illness, given in another place, it appears that the mean number of days that patients have been ill with fever before being brought to the hospital, is about seven, which, added to twenty-two, gives us twenty-nine, as the average number of days required by the disease to run its course, from the time of attack, till health is re-established.

During these twenty-nine days, the complaint progresses for a definite period, till a certain point of intensity is attained, after which, if a fatal event

have not taken place, the symptoms diminish in severity. This point, commonly termed crisis, occurs at some fixed time. In one hundred consecutive cases, carefully noted for this purpose, it was found, on a mean calculation, that the fourteenth day was that on which the crisis took place, or nearly about one-half the time which, as we have already seen, the whole course of fever takes up in each individual. So that it would seem to be proved by extensive observation, that the disease takes up one-half of twenty-nine days to progress, and the remainder to retrograde, or, in other words, that the periods of increment and that of decrement in the intensity of the symptoms in fever, are equal and proportional. The practical rule to be deduced from this law is, that no patient ought to be allowed to leave an hospital or his own room, until at least a length of time have elapsed, after a favourable change has taken place, equivalent to that intervening between this latter and the commencement of fever. Otherwise a relapse occurs, and nature, being foiled in her work, all has to be done over again; and hence we find (as one of our tables shews) that relapses happen on those occasions only where this rule has been broken through. Of 149 relapses occurring from 1818 to 1828 (after which time no account was taken of them in the registry), the mean duration of the original attack is found to be only twenty-two days, whereas, in other instances, it is twenty-nine. When recovery is taking place, there is always felt, on the part of the patient, an eagerness to get home, or to leave his bed too soon, which the medical attendants often find difficulty in repressing."

This is very judicious advice, and, although it is not to be taken au pied de la lettre, there is no doubt of its being a very excellent application of numerical results.

Passing over some general observations, to one of which, however, we shall instantly revert, we insert the concluding table. It renders the present report complete, and a very praiseworthy report it is. We shall feel great pleasure in throwing together the statistical records of practice that appear from time to time in our contemporaries. Our object is to give as useful a character as possible to clinical observations.

(See Table on the next page.)

We said that we would revert to one point. It is the mode of exhibiting wine in typhus. Much discretion is requisite in its administration—discretion both in timing and in measuring it. Dr. Mateer has applied the fact, which he seems in some degree to have established, that about the tenth or eleventh day the disease has reached its acmé and tends to decline, to the exhibition of wine. Let him speak for himself:—

"The plan I have followed for some time past is to keep from its use as long as possible, and to begin with it only when the pulse has sunk much, and prostration of strength is very decided. This for the most part happens on the tenth or eleventh day of sickness, or on the third or fourth after admission. The next rule to be observed is, that when we have commenced to use it, we are to do so at first in small quantities, and afterwards to increase it gradually till the proper effect is produced. The dose usually given at first to an adult is four ounces. This may be daily increased until, in the course of from three to four days, it is found to amount to twelve or fourteen ounces, which latter is, generally speaking, the 'maximum' dose that is advisable to be given. The day on which this quantity falls due to be given is commonly the critical day, or the period when the febrile action has reached its greatest intensity, and thereafter begins to decline. It is easy to see whether the wine so administered has had the proper effect, by the usual favourable symptoms making their appearance. The patient falls into a sound sleep or becomes quiet, and the countenance itself forms a sufficient index of the favourable change that may have taken place. When this has happened, the large dose of wine is no longer to be administered. *It must be immediately lessened, and that by the same gradation as we increased it, viz.* two ounces daily, till we come to the quantity we started

A TABLE,

Shewing the Number of Fever Patients admitted into the Belfast Fever Hospital, the Amount of Deaths, Moribund Cases, the Ratio of Mortality, General and Annual, from May, 1817, to May, 1835; with an Account of the Expenditure for the Ten Years, ending May, 1833.

DATE. From ,, to	ADMITTED.			DIED.			Moribund Cases.	Cases combined with Chronic Disease.	Total.	General Ratio of Deaths to the Recoveries.	Ratio of Deaths deducting Moribund Cases.	RELAPSES.		Average No. of days for each Patient to remain in Hospital.	EXPENDITURE FOR 10 YEARS.	ANNUAL AVERAGE EXPENDITURE FOR
May ,, May	Males	Fem.	Total.	Males.	Fem.	Total.						Adm.	Died.			
1817 ,, 1818	,,	,,	1621	,,	,,	79	18	,,	18	1 to 20	1 to 26	,,	,,	25	£. s. d.	Wine,
1818 ,, 1819	520	738	1258	20	42	62	7	1	8	,, 20	,, 23	49	1	25	,, ,, ,,	£. s. d.
1819 ,, 1820	311	369	680	17	24	41	,,	13	13	,, 16	,, 24	43	0	22	,, ,, ,,	85 16 4
1820 ,, 1821	368	359	727	29	12	41	9	,,	9	,, 17	,, 22	31	0	24	,, ,, ,,	Medicines,
1821 ,, 1822	124	135	259	14	5	19	11	,,	11	,, 13	,, 32	0	0	23	,, ,, ,,	185 2 0½
1822 ,, 1823	148	157	305	15	12	27	3	2	5	,, 11	,, 13	1	0	23	,, ,, ,,	Food,
1823 ,, 1824	115	96	211	10	13	23	1	,,	1	,, 9	,, 9	3	1	21	1247 11 0½	650 0 7
1824 ,, 1825	182	226	408	14	11	25	3	4	7	,, 16	,, 22	7	0	21	1265 9 0	Furniture,
1825 ,, 1826	143	169	312	10	9	19	5	3	8	,, 16	,, 28	2	0	25	1108 8 8	Clothing, &c.
1826 ,, 1827	391	467	858	28	32	60	9	7	16	,, 14	,, 19	8	1	24	,, ,, ,,	92 10 0½
1827 ,, 1828	299	357	656	20	16	36	6	7	13	,, 18	,, 28	4	0	22	1646 15 0	Coals, Soap,
1828 ,, 1829	219	262	481	8	12	20	1	,,	1	,, 24	,, 25	Fractional Numbers omitted.		25	1692 10 4	and Candles,
1829 ,, 1830	183	102	285	7	3	10	2	,,	2	,, 20	,, 23			25	1373 14 3½	90 2 7
1830 ,, 1831	258	310	568	21	26	47	1	3	4	,, 12	,, 13			25	1410 7 7	Salaries,
1831 ,, 1832	479	530	1009	44	35	79	4	2	6	,, 12	,, 13			22	1639 1 11½	150 16 3⅗
1832 ,, 1833	268	269	537	30	22	52	11	1	12	,, 10	,, 14			20	1604 14 5½	Various,
1833 ,, 1834	229	248	477	19	24	43	9	,,	9	,, 11	,, 14			20	1467 11 3½	153 5 11
1834 ,, 1835	301	336	637	31	29	60	3	1	4	,, 10	,, 11			21	,, ,, ,,	
Total Amt.	4458	5130	11209	337	327	743	103	44	147	1 ,, 15	1 ,, 18	149	3	22	14977 12 2½	1407 15 3½

Fractional Numbers omitted.

No account of the Relapses taken after this date.

from, when after a day or two its use may be dispensed with, and a pint of beer given for some time instead. This plan of treatment, together with the regular exhibition of purgatives or laxatives, as occasion would require, and sometimes of tonics during, convalescence, is the only one that has been found necessary to adopt for the cure of typhus."

Of course observations of this sort must always be received with some reserve, or, rather, they must not be made to bear more than they will fairly carry. When we come to individual cases, we must be guided by their particular circumstances. The recollection of a general principle is very serviceable, but it must not be rigidly applied to particulars, because general principles are, for the most part, averages of individual facts that differ materially in many of their features.

LONDON HOSPITAL.

STATISTICS OF THIS HOSPITAL, WITH REMARKS ON THE LAW OF SICKNESS. By T. R. EDMONDS, Esq. B.A.

The present number contains some statistical reports from the Birmingham Infirmaries, and from the Belfast Fever Hospital. Mr. Edmonds, of Trinity College, Cambridge, has published a short paper under the title we have copied in a late number of the Lancet.* The paper itself is very valuable, and deserves a more permanent place before the profession, than the rapid revolutions of a weekly journal will probably afford it. We will abridge it as much as is consistent with the preservation of its utility.

Mr. Edmonds very properly insists on the necessity of being acquainted with the general laws of mortality, in order that we may appreciate the effects of remedies. He volunteers a caution to the profession, which, although very proper, appears to involve a slight degree of fallacy.

"The merit of discovering some peculiarly efficacious treatment of a particular malady, is frequently claimed by different medical men, on the ground of the mortality among their patients being unusually low. All mention of the *ages* of their patients is omitted, and no suspicion appears to be entertained of the fact that, under the same medical treatment, a difference of 23 years in the ages of two classes of patients, will cause a doubling of the mortality. When the ages of the patients are unknown, the diminished duration of sickness, also, is no ground for presuming on any superiority of treatment. There exists satisfactory (though indirect) evidence, that the mean duration of an attack of sickness is equally dependent on the ages of the patients."

No doubt that voluntary or unconscious ignorance of the general laws of disease, has led to much vaunting, if not to actual charlatanerie, with respect to the action of particular modes of treatment in prevailing maladies. During the existence of the cholera, for example, while many people were boasting of their almost uniform success, the statistical results, such as could be got, shewed the general ratio of mortality and recoveries almost unaffected.

But we do not think that well-informed medical men have committed the grievous blunder charged on them by Mr. Edmonds, and failed to make allowance for difference of age. It needed not life-assurance offices to tell us, nor profound equations to demonstrate, that age is the great regulator of mortality. From the very first year of medical observation, empirical as it was, to this, physicians have recognized the obvious truth, and universally acted on it. Statistics may give increased precision to ideas founded on desultory observations, but they can be hardly expected to do more.

If Mr. Edmonds' strange assumption of gross carelessness or ignorance on the part of the profession is unfounded, the conclusion which springs from it falls to the ground. When

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* Sept. 3, 1836.

medical men claim success from a particular mode of treatment, they are not such asses as to confound all ages, or to think that because bleeding cures a robust man of a pleurisy, it will therefore cure a feeble octogenarian. A scientific physician or surgeon who recommends a peculiar remedy in a peculiar case, takes care to point out with infinitely more precision than Mr. Edmonds seems to dream of, not the age merely, but the habit and the constitutional state of the patient that it is adapted for.

Equally strange with the preceding accusation is the statement which follows:—that "no suspicion appears to be entertained of the fact, that, under the same medical treatment, a difference of 23 years in the ages of two classes of patients, will cause a doubling of the mortality." No suspicion appears to be entertained by Mr. Edmonds of his committing a very great absurdity. Where is the medical man who would employ the *same* medical treatment in two classes of patients, one 23 years older than the other? The exact ratio of mortality with advancing age is, no doubt, imperfectly known, but no physician in his senses would imagine that such a difference of years could fail to exert a very great influence on the efficiency of medicine. Statistics have not been sufficiently cultivated, but such a thing as common sense has not been quite absent from the minds of the profession, and they are not altogether so ignorant as Mr. Edmonds supposes.

His next assertion is as startling as those we leave behind, and if statistics lead to this, they will revolutionize not only opinions but facts.

"Between the ages of 15 and 60 years, I believe it to be a fact sufficiently well established, that for every death two years of sickness (nearly) have been suffered."

Mr. Edmonds must mean that the above is the average. He cannot wish his words to be literally taken. Yet the expression is loose for a statistician. He proceeds:—

"If, as is commonly the fact, the annual deaths between these ages amount to 1½ per cent., there will be *constantly sick* 3 per cent. of this part of the population. Respecting the number of *cases* of sickness from which the numbers constantly sick have been derived, we have very little direct information. If the mean duration of an attack of sickness be assumed to be 36½ days, or the tenth part of a year, then 30 per cent. of this population are yearly attacked by sickness. In the *British Medical Almanac* for 1836, Mr. Farr has shewn the above number of days to represent very nearly the usual duration of an attack of sickness in the hospitals of England. Out of 30 cases of sickness, there will then be 1½ deaths, being 5 per cent., or 1 out of 20. In the hospitals of London the deaths to cases commonly amount to 12 per cent. among the in-patients, in the physician's wards 24 per cent., and the surgeon's wards 8 per cent. If the out-patients had been included, the proportion of deaths to the total cases would probably not have materially differed from the above-mentioned proportion of one case in twenty."

The succeeding suggestions should be carefully attended to by those who wish to observe or to state the results of their observations.

"In order to determine the sanitary state of any population for one year, the elements to be observed are,—the number living, the number dying, the number attacked by sickness, and the mean number constantly sick, *all distinguished according to age*. When the third and fourth numbers have been observed, the mean duration of an attack of sickness at each age is known. A definite result cannot be obtained, unless two, at least, of the above four elements be simultaneously observed. It is not, however, indispensably necessary that *more* than two of these elements should be observed at one time. If, for example, from one observation we obtain the relation between the living and the dying,—from another, the relation between the dying and attacks of sickness,—and from a third observation, the relation between the numbers attacked and the numbers constantly sick, we shall then have all

that is required to determine the mutual relation of all the four elements."

Hitherto we have had no reports so complete as to embrace all these elements of calculation. Some have been defective in one way, some in another, yet, Mr. Edmonds remarks, that the few observations that have been made from a complete chain of connexion between the four elements.

"There have been published from many hospitals, reports of the total number of cases admitted, of the total number of deaths in hospital, and of the mean number constantly sick. But this information is generally of little value, because no report is made of the ages of the patients, of the numbers discharged uncured, or of the proportion of mild and severe cases of disease. The distinction of acute and chronic disease is also important; the latter ought to be referred to the age and time from the first attack. The first valuable statement on the influence of age in determining the mortality from a given number of cases of sickness, proceeded from the *London Fever Hospital.* This statement was inserted in THE LANCET of Feb. 27, 1836, not having, as I believe, before appeared in any work addressed to the medical profession. Dr. Southwood Smith, the author of this statement, has omitted to state the facts on which his results are founded. These results are, however, perfectly satisfactory, the defect in the detailed statement of facts being, probably, of the least possible importance in the case of a Fever Hospital. The proportion of "discharged uncured" of chronic cases, and of mild disease, are here all at their minima. According to Dr. Smith's observation, the deaths out of a given number of cases of sickness between the ages of 20 and 60, increase regularly 34 per cent. for every advance of 10 years in age. The present observation made at the London Hospital, agrees in the indication of the *same* progressive increase of mortality according to age, in the physician's wards, and also in the surgeon's wards. The observation of Dr. Smith is founded on 6,000 cases of fever occurring during the 10 years ending with 1833. The London Hospital observation is founded upon 13,870 cases (and 1,622 deaths) occurring during the six years ending with 1833."

Mr. Edmonds proceeds to lay before his readers three tables of facts observed at the London Hospital. Those facts have been obtained from a Parliamentary Return lately published.

"In this return the facts are given for each year, in the same form as they are now presented in the aggregate for six years. The patients are distributed in decennial intervals of age; the males are distinguished from females; and these are again distinguished into physician's and surgeon's cases. The cases admitted at each age are disposed of under four heads, cured, relieved, irregularly discharged, and dead in hospital. In the table of results I have included the 'Relieved' and the 'Irregularly Discharged' under one head, that of 'Discharged Uncured.' If there had been monthly (or even quarterly) enumerations, according to age of the patients *remaining in hospital*, the information would have been complete, and we should have known the mean duration of a case of sickness at each age. It is not yet too late to make such an observation, for the proportion admitted at each age appears to be of a permanent nature, and the proportions remaining in hospital at each age may be presumed to be equally permanent. A very small number of such enumerations would, probably, lead to a valuable approximation to the mean and almost permanent form in which the patients remaining in hospital are distributed according to age. (The mean number of patients remaining in the *London Hospital* is 300, without distinction of age or class)."

TABLES, *showing, for each of eight intervals of age, the numbers Admitted, Cured, Discharged, and Dead, in the London Hospital, during six years,* 1828-33.

(1.)—PHYSICIAN'S WARDS.

Age.	MALES.					FEMALES.					Both Sexes.	
	Cured.	Relieved.	Irregular discharge	Dead.	Total Cases.	Cured.	Relieved.	Irregular discharge	Dead.	Total Cases.	Cases.	Death.
0 — 10	14	2	1	3	20	20	5	2	6	33	53	9
10 — 20	270	42	22	47	381	280	78	25	33	416	797	80
20 — 30	629	133	55	180	997	392	115	36	79	622	1619	259
30 — 40	498	138	49	176	861	181	72	20	66	330	1200	242
40 — 50	301	111	31	157	600	101	49	17	55	222	822	212
50 — 60	149	40	20	98	307	44	24	6	22	95	402	120
60 — 70	43	14	2	36	95	7	7	6	8	28	123	44
Above 70	17	2	2	14	35	7	3	0	6	16	51	20
All ages	1921	482	182	711	3296	1032	353	111	275	1771	5067	986
20 — 50	1428	382	135	513	2458	674	236	73	200	1183	3641	713

(2).—SURGEON'S WARDS.

Age.	MALES.					FEMALES.					Both Sexes.	
	Cured.	Relieved.	Irregular discharge	Dead.	Total Cases.	Cured.	Relieved.	Irregular discharge	Dead.	Total Cases.	Cases.	Death.
0 — 10	218	97	24	19	358	223	76	43	70	412	770	89
10 — 20	729	254	60	36	1079	302	125	34	16	477	1556	52
20 — 30	862	348	158	73	1441	377	164	59	23	623	2064	96
30 — 40	899	308	105	73	1385	268	100	46	30	444	1829	143
40 — 50	566	196	58	94	914	198	73	30	20	321	1285	114
50 — 60	362	116	28	64	570	136	38	8	19	201	771	83
60 — 70	159	52	20	32	263	67	23	6	23	119	382	55
Above 70	63	24	6	23	116	40	13	6	21	80	196	44
All Ages	3858	1395	459	414	6126	1611	612	232	222	2677	8803	636
20 — 50	2327	852	321	240	3740	843	337	135	73	1388	5128	313

(3.)—TABLE *showing the results of the preceding tables, assuming the number of cases admitted at each decennial interval of age to be* 100.

Age.	Physician's Wards, Males.			Physician's Wards, Females.			Surgeon's Wards, Males.			Surgeon's Wards, Females.		
	Cured.	Discharged uncured.	Dead.	Cured.	Discharged uncured.	Dead.	Cured.	Discharged uncured.	Dead.	Cured.	Discharged uncured.	Dead.
0 — 10	70·0	15·0	15·0	60·6	21·2	18·2	60·9	33·8	5·3	54·1	28·9	17·0
10 — 20	70·9	16·8	12·3	67·3	24·8	7·9	67·6	29·1	3·3	63·3	33·4	3·3
20 — 30	63·1	18·8	18·1	63·0	24·3	12·7	59·8	35·1	5·1	60·5	35·8	3·7
30 — 40	57·8	21·8	20·4	53·4	27·1	19·5	64·9	29·8	5·3	60·4	32·8	6·8
40 — 50	50·2	23·6	26·2	45·5	29·7	24·8	61·9	27·8	10·3	61·7	32·1	6·2
50 — 60	48·5	19·6	31·9	46·3	30·5	23·2	63·5	25·3	11·2	67·7	22·9	9·4
60 — 70	45·3	16·8	37·9	25·0	46·4	28·6	60·5	27·3	12·2	56·3	24·4	19·3
Above 70	48·6	11·4	40·0	43·8	18·7	37·5	54·3	25·9	19·8	50·0	23·8	26·2
All ages	58·3	20·1	21·6	58·3	26·2	15·5	63·0	30·2	6·8	60·2	31·5	8·3
20 — 50	58·1	21·0	20·9	57·0	26·1	16·9	62·2	31·4	6·4	60·7	34·0	5·3

On casting the eye over the preceding tables, we are struck by one or two unexpected circumstances. In the first place, the number of female patients and of deaths below the tenth year of age, exceeds that of the males. Thus we find in the physician's wards 38 females admitted and 6 deaths—and only 20 males admitted and 3 deaths. In the surgeon's wards there are admitted 412 females, and 70 deaths—and 358 males and 19 deaths. These facts are opposed to some reports from the Pennsylvania Alms-houses, which we published in our last number, and we therefore direct attention to the circumstance. After the age of 20, the mortality amongst the males materially exceeds that among the females; but it is singular that the excess is greater in the patients of the physicians than in those of the surgeons. This fact is in apparent contradiction to those who have imputed the mortality of males to their greater exposure to accidents. Exposure, indeed, tells in more ways than by leading to a broken leg, and probably the solution may remain as applicable and as accurate as ever.

"From the table of results it appears, that out of 100 male patients admitted into the physician's wards, between the ages of 20 and 50, there die, *in hospital*, 20.9. It cannot hence be concluded (as is often done) that only 20.9 die out of 100 cases admitted, because it would then follow that 79.1 were cured, whilst the true statement is, that there were only 58.1 cures corresponding to 20.9 deaths. The number 'discharged uncured' amount commonly to one-fourth part of the cases admitted. Some of these cases will terminate in recovery, and some in death. Assuming that all cases terminate either in recovery or in death, I have adopted the following principle for distributing the 'discharged uncured' into these two classes:—Suppose out of 15 cases of sickness, the report to be made, that eight are cured, two dead, and five discharged uncured. I have then assumed that out of the five cases discharged uncured, four terminate in cure and one in death. The cases whose termination is known, are in the proportion of four recoveries to one death, and we have no ground for expecting a different result from the cases whose termination is unknown. The following table has been calculated on this principle, by adding to the deaths in hospital the proportion of deaths due to the numbers discharged

uncured. The general effect of this correction is to increase the apparent mortality 30 per cent. at each age. I have, however, given the mean results independent of this correction, for the sake of comparing them with results obtained in a similar manner from the London Fever Hospital and from the Marylebone Infirmary. In these latter observations the numbers discharged uncured have not been distinguished.

(4.)—TABLE *showing, at each age, the proportion of Deaths in Hospital, corrected for the Numbers discharged Uncured; also showing their Proportions without Correction, compared with the experience of the Fever Hospital, and of the Marylebone Infirmary.*

Age.	London Hospital.—Including the presumed Death of Discharged Uncured.						Deaths in Hospital.			
	Physn's Wards		Surgn's Wards		Both Sexes.		London Hosp. Both Sexes.		Marylebone Infirmary.	London Fever Hospit.
	Males.	Fem.	Males.	Fem.	Phys.	Surg.	Phys.	Surg.		
0 — 10	17·6	23·1	8·0	23·9	20·4	16·0	16·6	11·2	12·2	—
10 — 20	14·8	10·5	4·7	5·0	12·7	4·9	10·1	3·4	4·6	9·9
20 — 30	22·3	16·8	7·8	5·8	19·6	6·8	15·4	4·4	15·3	14·3
30 — 40	26·1	26·7	7·5	10·1	26·4	8·8	20·0	6·0	21·5	19·5
40 — 50	34·3	35·3	14·3	9·1	34·8	11·7	25·5	8·3	21·7	26·2
50 — 60	39·7	33·4	15·0	12·2	36·6	13·6	27·5	10·3	32·3	35·5
60 — 70	45·6	53·3	16·8	25·5	49·4	21·2	33·2	15·8	26·5	—
Above 70	45·1	46·1	26·7	34·4	45·6	30·5	38·8	23·0	42·0	—
All ages	27·0	21·0	9·7	12·1	24·0	10·9	18·6	7·5	18·7	—
20 — 50	26·5	22·9	9·3	8·0	24·7	8·7	18·9	5·8	19·2	—

It is worthy of remark that the *absolute* mortality at any age (from 10 to 60) differs in a very inconsiderable degree among the three classes of patients—in the *Fever Hospital*, in *Marylebone Infirmary*, and in the physician's wards of the *London Hospital*. With respect to the *relative* mortality, taking the experience of the *Fever Hospital* as the correct standard, the rate of increase is generally too high in the *Marylebone Infirmary* when it is too low in the *London Hospital*, and reversely. Among the male patients of the *London Hospital*, the mortality increases less than 34 per cent. for every difference of 10 years in age: among the female patients the reverse is the case. This disagreement can hardly be attributed to any thing but a difference in the causes of admission; for there is no reason to suppose that the relative mortality of males differs from that of females in the total population."

Mr. Edmonds makes some further observations on a mathematical formula for the rate of mortality. We leave this, however, to the Insurance Offices. Mr. Edmonds deserves much praise for bringing the tables we have copied before the professional public, and although we questioned some of his positions at starting, we are very sensible of the credit due to him for his exactness and ingenuity. We trust that Mr. Edmonds will persevere with these researches, and we shall feel great pleasure in directing, at all times, particular attention to them.

PENNSYLVANIA HOSPITAL.

REPORT OF CASES TREATED IN THE SURGICAL WARDS. By T. S. KIRKBRIDE, M.D. Late Resident Physician.

This Report is contained in one of the

numbers of our able contemporary—the American Journal of the Medical Sciences.* We shall select some of the more interesting or instructive cases which it contains.

1. *Amputation of the Hand by Machinery—no Ligatures required.*

Robert R. æt. 30, a healthy boy, while attending to some machinery, had his left hand entangled in it. The hand was, in consequence, torn off, with a small transverse portion of the lower end of the radius; the muscles were ruptured about four inches above the wrist, and drawn out, still remaining attached by their tendons to the hand. He was brought to the hospital the same evening. There was very little hæmorrhage, and no vessel requiring the application of a ligature. As nearly enough skin remained to form a flap, it was gently drawn over the stump, and dressed as usual after an amputation. A little fever followed, with slight sloughing of the integuments over the stump, and a small collection of pus above the wrist. With these exceptions he did well.

2. *Mode of Applying the Ligature for Aneurism by Anastomosis.*

Our readers may remember that, in the latter part of 1829, a paper was published by Sir Benjamin Brodie in the Medico-Chirurgical Transactions, on the mode of tying those erectile tumors that sometimes occur on the surface of the body. Sir B. Brodie's plan consisted in passing two long needles beneath the tumor, crossing them at a right angle. Under the needles the tumor was then strangulated by ligatures.

It appears that a similar proceeding was adopted in January 1829, by Dr. Barton of Philadelphia. He was of course ignorant of what Sir B. Brodie had done, and the coincidence is amusing. This may serve to introduce us to the following case, in which Dr. Barton operated.

Case. A healthy child, nine months old, was taken to the hospital, on the 3rd of December, 1834, on account of an aneurysm by anastomosis, which had existed since birth on the left side of the cheek, near the angle of the mouth. It had attained the size of a small nutmeg. The ligature was applied in the following manner:—A common hair-lip pin was introduced through the integuments under the tumor, so that about one-half of its length projected beyond the margins; by this the tumor was elevated, and a second pin introduced under the first, and at right angles to it. A strong ligature was then applied around the base of the tumor, below the points of the pins, as firmly as possible. The child did not appear to suffer severe pain, except at the moment of tightening the ligature. On the 6th the ligature was removed, and the slough separated on the 9th, leaving an ulcerated surface, three-fourths of an inch in diameter, and of healthy appearance. Simple dressings were applied; the granulations occasionally touched with the argent. nit. and on the 3d of January, 1835, the parts had cicatrized completely.

3. *Cases of Fracture of the Patella.*

No. 1. Jane M. æt. 29, admitted October 16th, 1833. In falling backwards, and making an effort to save herself, fractured the right patella. Discharged December 2d. Ligament rather more than one-fourth of an inch. She experienced much difficulty in bearing a tight bandage.

No. 2. John M. æt. 61, admitted April 5th, 1834. Fracture from a fall with the knee upon the edge of a curb-stone. Entered the hospital twenty hours after the accident, with great swelling and tenderness of the part; crepitation could still be detected, and a separation of the fragments. The limb was elevated, and leeches and cold applied to the knee. He could not bear a bandage till the 27th. Discharged June 28th. No appreciable separation of the fragments; union perfect; upper part slightly depressed.

No. 3. Jane M. (No. 1,) with frac-

* For August, 1835.

ture of the other patella. Admitted April 20th, 1834. Accident produced as in the previous instance, in attempting to keep herself from falling, and making great exertion with the sound limb to save that which had been before injured. Discharged June 28th. Union ligamentous, one-eighth of an inch separation; the upper fragment a little more depressed than the inferior one.

No. 4. Jane E. æt. 52, admitted January 21st, 1835. Produced by a fall upon the knee, fracture transverse, and a smaller fragment half an inch wide separated from the upper portion. Discharged March 21st. No separation can be detected between the upper and lower portions of the patella, except at the point where the small fragment existed, and here a line is detected; this last being a little depressed below the others.

No. 5. John M. æt. 32, admitted January 9, 1835. Fracture induced by muscular exertion. He was exceedingly restless, had mania a potu, and loosened the apparatus repeatedly; notwithstanding which, union took place, with a separation of less than one-fourth of an inch. He insisted on leaving the hospital, contrary to the wishes of his attendants, on the 14th of March. After his return home, it appears he commenced bending his leg at once, and met with some accident, by which the union between the fragments was entirely broken up, and they are now between two and three inches apart, without any intervening ligament. He is again in the hospital for the purpose of having something done for his relief.

No. 6. This is a case of compound fracture, which was admitted on the 25th of March, 1835, and still continues in the hospital under treatment. If any union has taken place, (June 6th,) it is very slight.

"The above six cases of fracture of the patella are all that occurred to the writer during a residence of two years in the Pennsylvania Hospital, and were all he believes that were received during that period. The comparative frequency of the accident appears to have been greater than has usually occurred in that institution, as many months not unfrequently elapse without there being a single specimen in the wards, where cases of fracture are always numerous. During the two years ending in April, 1835, two hundred and forty cases of fracture were under treatment, of these six were of the patella, or one in forty. Of these six, two occurred in the same individual; three were in males and three in females. Three were produced by muscular action alone, two from a fall upon the part, and that of compound fracture by a piece of rock thrown against the knee from an explosion."

BLOCKLEY HOSPITAL.

DR. GERHARD'S REPORTS ON PNEUMOTHORAX.

Dr. Gerhard, physician to the Blockley Hospital, has related two cases of pneumothorax in the number of our contemporary, for February, of the present year. He has related two, but he promises three more. Indeed the report appears to have been suddenly cut short, for he commences by observing:—

"The following cases of Pneumothorax are five in number; four of them were treated and observed at the Pennsylvania Hospital, and one at the Blockley Hospital, attached to the Philadelphia Alms-house. The cases observed at the Pennsylvania Hospital proved fatal; three of these patients died of the immediate effects of the perforation, one recovered from it entirely, and died of a secondary pleurisy, which supervened about a year after his discharge from the Hospital. The last patient is still under treatment. The cases afford illustrations of most varieties of the lesion in question."

We shall give a brief sketch of the two, and detail the remainder when they come to hand.

"CASE 1. *Phthisis of eighteen months' standing—Tuberculous Cavities in the left Lung—Perforation occurring at the*

upper portion of the right Pleura—Extreme Dyspnœa—Death an hour after the perforation—Pleura distended with inodorous Gas, and slightly reddened around the perforation.

A seaman, æt. 26, admitted Jan. 14, 1835.

In January, 1834, he was first affected with cough and pain in the chest. In March or April, he was seized with hæmoptysis, which subsequently continued, more or less.

On admission he had cough—whitish expectoration with streaks of blood—and many suspicious phthisical symptoms. These gradually advanced, and in March, the anterior part of the left side yielded a perfectly flat sound on percussion, and there was a strong crackling during the inspiration; when he coughed this was replaced by gurgling. The phthisis went on. Suddenly, in the evening of the 5th of July, Dr. Gerhard was summoned to him. He found him sitting in bed, suffering great dyspnœa, and complaining of intense pain in the right side. The respiration had become more feeble, but the percussion was not materially altered. A mustard pediluvium, a sinapism to the back, and cups to the right side did not relieve the dyspnœa. The respiration was afterwards scarcely heard in the right side, while the sound on percussion became more clear, and the intercostal spaces were distended. The countenance was at first extremely livid, and finally pale and anxious. Death occurred about an hour after the beginning of the dyspnœa.

Thus, in an advanced stage of phthisis, the patient was suddenly attacked with acute pain in one side, attended with feeble respiration, and increased resonance on percussion. What could this be but pneumothorax?

Dissection fifteen hours after death.

The lymphatic glands on the left side of the neck, from the clavicle to the mastoid process, varied in size from that of a small almond to a large hen's egg. Their substance was converted into a white cheesy matter, varying in consistence from that of hard cheese to a soft creamy pulp; the cyst surrounding them was dense and of a white fibrous aspect. The left side of the thorax was contracted; the intercostal spaces more depressed than usual. The right side was evidently distended, and the intercostal spaces strongly protruded; the sound of percussion upon this side of the chest was tympanitic throughout its whole extent.

The right pleura was opened and found distended with air. The lung was reduced to about one-fourth its natural size, and was in contact with the spine. The pleura covering it presented some slight cellular adhesions at the summit; about an inch and a half below the top of the lung, at the part corresponding to the upper portion of the axilla, there was a little depression, of a rounded form, about half an inch in diameter, and of a dirty yellow colour; the centre of this depression offered a rounded perforation nearly two lines broad. When air was forced into the trachea, it was expelled in a stream from the perforation which communicated with a tuberculous cavity of the size of a large hazel-nut, immediately beneath the pleura, which formed a part of its walls. It communicated freely with a bronchial tube, and contained some softened yellow tuberculous matter. A few yellow tubercles and granulations were contained in the upper part of the lung, which was throughout permeable to the air. A few ounces of limpid serum were found at the base of the pleura, which was brightly injected round the perforation.

The left lung was extensively tuberculated, with cavities in the upper lobe. The pleuræ were universally adherent.

The rapidity of the march of the fatal symptoms is not difficult of explanation. One lung was so tuberculated as to be inefficient for the purposes of respiration. The pneumothorax put the other hors-de-combat. Still the progress of the case *was* rapid.

The case shews well that pneumothorax usually occurs in an early stage of tuberculated lung. In the latter stages, repeated pleurisies have usually produced more or less perfect obliteration of the pleural cavity. If before this has taken place, a small tuberculous cavity near the surface of the lung hap-

pens to give way, pneumothorax is the consequence.

CASE 2. *Phthisis of eight months' duration—Tubercles confined to the summit of the lungs—Sudden pain occurring while in bed in the right side of the chest—Distention of that side; loud resonance on percussion; amphoric respiration and metallic tinkling; decubitus on the side not affected—Death eleven days after perforation.*

A cupper, æt. 27, admitted March 1, 1834. Cough commenced at the end of the Autumn of 1833. In two months expectoration occurred, once or twice only streaked with blood. In the Winter, pain in the chest and emaciation commenced. On his admission the symptoms of phthisis were distinct. Slight dulness on percussion at the upper part of the right side of the chest; feeble inspiration throughout the upper two-thirds of that lung; resonance of the voice much increased at its upper and posterior part.

On the morning of the 30th of May, he was awakened by severe pain in the right side of the chest; when he turned towards that side he felt something fall from the inside of the chest towards the ribs, with so much increase of pain as to impede his breathing. The respiration was extremely feeble throughout the whole extent of the right side, but the percussion was perfectly sonorous.

On the 4th of June he was able to sit up. The right side of the chest was found to be more prominent than the left, it measured nearly two inches more in semi-circumference. Percussion gives a tympanitic sound over the whole right lung. On the left side it offers no changes. The respiration is almost absolutely wanting on the right side, a faint blowing inspiration is confined to the top of the lung. The cough and the voice both yield the peculiar resonance termed amphoric, and a metallic tinkling follows each effort of coughing. On the left side the respiration is expansive and natural throughout, except near the clavicle, where it is rough. Forty to fifty inspirations per minute; pulse quick, 120.

From the 4th to the 9th the dyspnœa increased, with decubitus on the left side. On the morning of the 10th, he died.

Dissection, nine hours after death.

"On perforating the right pleura above the nipple, a stream of air escaped from the opening with a whizzing sound, and at the same time the intercostal spaces evidently subsided. The right pleura contained about a pint of troubled serosity, mixed with flocculi of lymph; the costal pleura was not reddened, but it was lined with a coating of irregular false membrane, easily detached from it. The lung was closely applied to the mediastinum, and was reduced to the thickness of an inch; its pleura was covered with yellowish lymph, about the thickness of a dollar, which was partly disposed in a smooth layer, and in other parts was of a cellular aspect, like the false membrane usually found in pericarditis. The pleura was pale and wrinkled. The summit of the lung was occupied by a cavity the size of a small walnut; it was nearly empty, and lined by a firm cartilaginous membrane, with some patches of a soft internal coating adhering to it. An irregular perforation communicating with the cavity of the pleura, was seen near some strong adhesions, which were limited to the vicinity of the tuberculous excavation. The opening did not exceed a line in diameter. The rest of the lung was of a grayish colour, perfectly permeable to the air, and contained numerous gray and yellow granulations."

The left lung adhered at several points near the summit. It had numerous tubercles, and one cavity the size of a large almond.

GUY'S HOSPITAL.

ANALYSIS OF THE ORGANIC LESIONS FOUND IN 100 CASES, IN WHICH THE URINE WAS ALBUMINOUS.*

When the mind is devoted to a par-

* Guy's Hosp. Reports, No. II.

ticular investigation, it is difficult, perhaps impossible, to avoid attaching an overweening importance to the subject which so fully occupies it. The mental telescope, like the physical, enjoys only a limited range, and if the object at which it is pointed is distinctly seen, its magnitude and clearness are observed at the expense of others which become no longer visible. We know not whether this general truth has been conspicuous in the case of Dr. Bright. He has investigated with much success the conditions of the kidney, connected with an albuminous condition of the urine, but possibly he may have gone a little too far in the consequences that he has drawn from his researches.

In the Guy's Hospital Reports, a well-written paper on albuminous urine, which was noticed in our last number, is followed by a tabular view of the morbid appearances occurring in 100 cases, in which that state of the urine existed. The tabular view is too long for insertion, but we can afford space for an analysis of its prominent features.

A glance at the table is sufficient, as Dr. Bright remarks, to convince us, that many and important lesions are the frequent accompaniments of the granular condition of the kidney, to which he has so particularly directed attention. It is natural that Dr. Bright should attribute to the kidney their occurrence—but it is difficult to determine the absolute correctness of this idea without a careful and extended consideration of *all* the facts of the cases. For our own parts we cannot help suspecting that Dr. Bright rather over-rates the importance, if not the frequency, of this renal disease. However that may be, we will present a sketch of the lesions which were actually discovered in the 100 cases in question.

A. *Lesions in the Serous Membranes.*

These display a considerable tendency to inflammation. The pleura shews that tendency most distinctly.

"The disease has, in forty cases, consisted of old adhesion; which, though it might have been connected with the first attack of renal disease, or might have taken place at some later period, in connexion with that affection, may probably only mark the liability of the individual to be affected by atmospheric changes, and may have been the result of some casual inflammatory attack. At all events, the twenty-six cases in which the pleura was apparently healthy, and in three of which its freedom from disease is distinctly stated, prove, that however general a limited inflammatory action of the pleura may have been, it forms no essential part of the disease. That the pleura is, however, liable to inflammatory action, in a large proportion of these cases, may be inferred from the sixteen instances of recent inflammation; while the serous effusion, which has occurred in forty-one cases, has been connected with that general loss of balance between the actions of the exhalents and the absorbents which is obvious in every part of the system.

The same tendency to disease which is manifest in the pleura, shews itself, though in a less degree, in other serous membranes. In the pericardium, we have found six instances of old adhesion, eight of recent inflammation, and twenty-three of serous accumulation; and in the peritoneum, ten instances of old adhesion, twelve or thirteen of well-marked, recent, and often most acute inflammatory action; and twenty-three of the effusion of clear serum, in three of which a false membrane had been formed by chronic action: and again, looking to the arachnoid, we find that membrane rendered opaque, probably by a more or less severe inflammatory action, in thirteen cases; while well-marked serous accumulation had taken place beneath it in twenty-nine cases, and had partially distended the ventricles in six."

B. *Lesions of the Heart.*

This organ has shewn great liability to alteration. In twenty-seven cases, no disease could be detected, while in six others it is probable that there was none. The obvious structural changes in the heart have consisted chiefly of hypertrophy with or without valvular

disease: and what is most striking, out of fifty-two cases of hypertrophy, no valvular disease whatsoever could be detected in thirty-four; but in eleven of these thirty-four, more or less disease existed in the coats of the aorta; still, however, leaving twenty-two without any probable organic cause for the marked hypertrophy generally affecting the left ventricle. Dr. Bright suspects that the altered state of the blood is the cause of the hypertrophy, but this is rather fanciful. When we recollect that most of these cases occur in persons in the lower class of life, who abuse ardent liquors, a much more probable explanation presents itself. Hard work and alcoholic drinks are probably the real stimulants of the heart's action, and the efficient causes of its hypertrophy. Independently of renal disease altogether, ventricular hypertrophy is a very common, perhaps the most common lesion, discovered in the lower class of people between the ages of thirty-five and fifty. Our own observation would lead us to think this, but we are leaning upon that observation and not upon actual numerical data. We would say that hypertrophy of the heart is a much more common disease than the granulated kidney, and when they co-exist, the former is, cæteris paribus, likely, in many instances, to have been the antecedent. But probabilities of any sort are of little weight in questions of this kind, where rigorous observation should determine the order of the phenomena.

The hypertrophy of the heart was found to have kept pace with the advance of disease in the kidney. Six cases are noted, in which the heart was soft and flaccid, and four in which it was unusually small; and in most of these, though not in all, the disease of the kidney had not proceeded to the state of contraction and hardness.

c. Lesions of the Lungs.

"The principal diseases of the lungs have been œdema and bronchitis, frequently attended by an emphysematous condition of certain portions. Œdema has occurred in thirty-one cases; and it is very commonly the immediate cause of dissolution, or of the increased distress towards the approaching termination of the chronic form of the disease. In six cases, recent, and in five old, traces of pneumonia were found; while the embarrassment to the circulation, caused by these various diseases of the heart and lungs, had occasionally given rise to the effusion of blood into the tissue of the lungs, in the form which is now known by the term of pulmonic apoplexy. The instances in which phthisis, or any form of scrofulous or tuberculous disease, has been connected with the renal affection, have been decidedly rare; so that in only four cases has recent phthisis developed itself: and what is somewhat remarkable, in more than double that number the disease seems to have made a certain inroad upon the upper lobes of the lungs, and then to have sunk into a state of quiescence, or entirely subsided: from which we should perhaps be inclined to infer, that so far from these diseases being associated, the condition of the body in this form of renal disease is unfavourable to the existence of phthisis, or that it is certainly not peculiarly apt to occur in tuberculous constitutions."

We think there can be little doubt that the granular kidney is not the product of the state of system that occasions or that waits on phthisis. The evidence is of a two-edged character. In the first place, out of the numerous cases of phthisis, we seldom see any in which this renal alteration takes place; in the second place, the latter is seldom found to be attended with phthisis. It is rather the product of that constitutional condition occasioned by intemperance, in which the heart is more apt to be involved than the lungs are.

d. Lesions of the Liver.

The following observations are important. They tend to correct a notion which has been carried to an extravagant length.

"With regard to the liver and the abdominal viscera generally, as compared with the heart and lungs, a very great immunity from structural disease is to be observed; a fact the more remark-

able, as the habits of intemperance with which the renal disease is so frequently connected are those which might be expected to act very directly on the liver and digestive organs: indeed, to this day, the impression is so strong, as to the injurious effects of stimulants being manifested chiefly on the liver, that the majority of practitioners no sooner see the bloated countenance of anasarca connected with the history of intemperance, than they proceed to consider in what way the depraved action of the liver is to be corrected, and its morbid changes retarded. Looking to the tables before us, a very different conclusion forces itself upon our mind, as to the condition of the liver in general anasarca, and in that state of cachexia which often attends upon intemperate habits. We here find, in thirty-one cases, the liver distinctly stated to be healthy; and in nine other cases, so free from all suspicion of deranged action, as to be pointed out as remarkable specimens of the healthy organ; thus making forty in the hundred free from disease. In thirty-two cases, any deviation from the natural appearance was exceedingly slight; and was, in a large proportion of them, nothing more than that mottled state which is derived from the irregular distribution of blood throughout the texture—a condition very frequently observed, where the circulation through the chest is obstructed. The instances of confirmed diseased structure did not amount to above eighteen. "There seemed to be no marked connexion between the condition of the kidney and of the liver; for nearly one half of those cases which were stated to be remarkably healthy were coupled with the hard and probably most advanced form of the disease, while the other half occurred in cases apparently less advanced; and the more severe cases of hepatic derangement accompanied every variety of the disease in the kidney. The only two instances of fatty degeneration in the liver were in cases where the kidney was soft, smooth, and white; but in another, where the liver was somewhat fatty, the kidney was hard, rough, and lobulated."

E. *Lesions of the other Abdominal Viscera.*

The stomach seems to have suffered in some measure from the abuse of stimulants. In eighteen cases the mucous membrane is recorded to have suffered from irritation. In many more, perhaps its condition was not accurately ascertained.

In about nineteen cases, the small intestines have been irritated in some portions of their course—in a few of these, ulceration has taken place; and in seven cases the colon or cæcum has been diseased; but several of these have occurred in conjunction with tubercles in the lungs, and have therefore been scarcely ascribable to the peculiar circumstances of this disease.

F. *Lesions of the Brain.*

These have chiefly consisted of that unequal distribution of blood which is apt to produce a mottled appearance when the medullary substance is exposed in slices, and which is frequently attendant on convulsive or apoplectic seizures. In some cases, the brain has been exsanguine; and in a few, the results of such lesions as the rupture of vessels may induce, have been observed.

G. *Immediate Causes of Death.*

In seventy cases Dr. B. has been able to determine the immediate cause of death. No less than thirty out of these seventy have died of well-marked symptoms of cerebral derangements, noted under the titles of 'apoplexy,' 'coma,' 'convulsion,' and 'epilepsy.' Eight others have died suddenly. In eight cases, the obstructed condition of the lungs has been the immediate cause of death; and in three, the effusion into the chest has hastened the dissolution. Next to head affections, the most prevalent diseases have been inflammatory attacks in the serous membranes;—amongst which are five well-marked cases of peritonitis, three of pericarditis, one or two of pleuritis. Diarrhœa and other exhausting diseases have carried off several.

H. *Age at which Death occurs.*

The Table tends in a material degree

to illustrate this curious and important point.

"In seventy-four cases, the age has been recorded; and of these, four only have survived beyond their sixtieth year; thirteen have passed their fiftieth year; but few of them have lived to fifty-five: twenty-one have died between forty and fifty; sixteen have passed thirty years; and nineteen have died before they had arrived at their thirtieth year: and if we take those who have died in their forty-fifth year and below that age, we find that the large proportion of fifty out of seventy-four have sunk before the meridian of life. The youngest, whose age is given, is only eight; and there is one advanced to seventy-three: shewing, therefore, that neither youth nor age is exempt from this disease, but that it has cut off the greater part of its victims before the middle period has been attained."

MISCELLANIES.

AN ACT TO PROVIDE FOR THE ATTENDANCE AND REMUNERATION OF MEDICAL WITNESSES AT CORONERS' INQUESTS.

[Aug. 18th, 1836.]

Summoning of Medical Witnesses.

1. WHEREAS it is expedient to provide for the attendance of Medical Witnesses at Coroners' Inquests, also Remuneration for such attendance, and for the performance of Post-mortem Examinations at such Inquests: Be it therefore enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, that from and after the passing of this Act, whenever upon the summoning or holding of any coroner's inquest it shall appear to the coroner that the deceased person was attended at his death, or during his last illness, by any legally qualified medical practitioner, it shall be lawful for the coroner to issue his order, in the form marked (A) in the Schedule hereunto annexed, for the attendance of such practitioner as a witness at such inquest; and if it shall appear to the coroner that the deceased person was not attended at or immediately before his death by any legally qualified medical practitioner, it shall be lawful for the coroner to issue such order for the attendance of any legally qualified medical practitioner, being at the time in actual practice in or near the place where the death has happened; and it shall be lawful for the coroner, either in his order for the attendance of the medical witness, or at any time between the issuing of such order and the termination of the inquest, to direct the performance of a post-morten examination, with or without an analysis of the contents of the stomach or intestines, by the medical witness or witnesses who may be summoned to attend at any inquest; provided that if any person shall state upon oath before the coroner that in his or her belief the death of the deceased individual was caused partly or entirely by the improper or negligent treatment of any medical practitioner or other person, such medical practitioner or other person shall not be allowed to perform or assist at the post-mortem examination of the deceased.

Additional Medical Evidence if the first be not satisfactory.

II. And be it further enacted, That whenever it shall appear to the greater number of the jurymen sitting at any coroner's inquest, that the cause of death has not been satisfactorily explained by the evidence of the medical practitioner or other witness or witnesses who may be examined in the

first instance, such greater number of the jurymen are hereby authorized and empowered to name to the coroner, in writing, any other legally qualified medical practitioner or practitioners, and to require the coroner to issue his order, in the form herein-before mentioned, for the attendance of such last-mentioned medical practitioner or practitioners as a witness or witnesses, and for the performance of a post mortem examination, with or without an analysis of the contents of the stomach or intestines, whether such an examination has been performed before or not; and if the coroner, having been thereunto required, shall refuse to issue such order, he shall be deemed guilty of a misdemeanor, and shall be punishable in like manner as if the same were a misdemeanor at common law.

Fees to Medical Witnesses and Funds for their Payment.

III. And be it further enacted, That when any legally qualified medical practitioner has attended upon any coroner's inquest in obedience to any such order as aforesaid of the coroner, the said practitioner shall for such attendance at any inquest in Great Britain be entitled to receive such remuneration or fee as is mentioned in the table marked (B.) in the Schedule hereunto annexed; and for any inquest held in Ireland, the said practitioner shall be paid in the manner provided by the laws in force in that part of the United Kingdom; and the coroner is hereby required and commanded to make, according to the form marked (C.) in the Schedule hereunto annexed, his order for the payment of such remuneration or fee, when the inquest shall be held in Great Britain, and such order may be addressed and directed to the churchwardens and overseers of the parish or place in which the death has happened; and such churchwardens and overseers, or any one of them, is and are hereby required and commanded to pay the sum of money mentioned in such order of the coroner to the medical witness therein mentioned, out of the funds collected for the relief of the poor of the said place.

Fee not payable for a post-mortem Examination instituted without Order from the Coroner.

IV. Provided nevertheless, and be it further enacted, That no order of payment shall be given, or fee or remuneration paid, to any medical practitioner for the performance of any post-mortem examination which may be instituted without the previous direction of the coroner.

Inquests on Bodies of Persons dying in public Institutions.

V. Provided also, and be it further enacted, That when any inquest shall be holden on the body of any person who has died in any public hospital or infirmary, or in any building or place belonging thereto, or used for the reception of the patients thereof, or who has died in any county or other lunatic asylum, or in any public infirmary or other public medical institution, whether the same be supported by endowments or by voluntary subscriptions, then and in such case nothing herein contained shall be construed to entitle the medical officer whose duty it may have been to attend the deceased person as a medical officer of such institution as aforesaid to the fees or remuneration herein provided.

Penalty for neglecting to attend.

VI. And be it further enacted, That where any order for the attendance of any medical practitioner as aforesaid shall have been personally served upon such practitioner, or where any such order not personally served shall have been received by any medical practitioner in sufficient time for him to have obeyed such order, or where any such order has been served at the residence of any medical practitioner; and in every case where any medical practitioner has not obeyed such order, he shall for such neglect or disobedience forfeit the sum of five pounds sterling, upon complaint thereof made by the coroner or any two of the jury before any two justices having jurisdiction in the parish or place where the inquest under which the order issued was held, or in the parish where such medical

practitioner resides; and such two justices are hereby required, upon such complaint, to proceed to the hearing and adjudication of such complaint, and if such medical practitioner shall not show to the said justices a good and sufficient cause for not having obeyed such order, to enforce the said penalty by distress and sale of the offender's goods, as they are empowered to proceed by an act of parliament for any other penalty or forfeiture.

Act not to extend to Scotland.

VII. And be it enacted, That nothing in this Act contained shall extend to Scotland.

SCHEDULE TO WHICH THIS ACT REFERS.

(A.) *Form of Summons.*

Coroner's inquest at , upon the body of

By virtue of this, my order, as coroner for , you are required to appear before me and the Jury at ; on the day of 18 , at o'Clock, to give evidence touching the cause of death of , [*and then add, when the witness is required to make or assist at a post-mortem examination*] and make or assist in making a post-mortem examination of the body, with [*or without*] an analysis, [*as the case may be,*] and report thereon at the said inquest.

(Signed) Coroner.

To , Surgeon, [*or* M.D., *as the case may be.*]

(B.) *Table of Fees.*

1. To every legally qualified medical practitioner for attending to give evidence under the provisions of this Act, at any coroner's inquest, whereat no post-mortem examination has been made by such practitioner, the fee or remuneration shall be one guinea.
2. For the making of a post-mortem examination of the body of the deceased, either with or without an analysis of the contents of the stomach or intestines, and for attending to give evidence thereon, the fee or remuneration shall be two guineas.

(C.) *Coroner's Order for the payment of Medical Witnesses.*

By virtue of an act of parliament passed in the session of the holden in the intituled I, the coroner of or for do order you, the overseers of the parish [*or* township, *as the case may be*], to pay to the sum of [one guinea *or* two guineas, *as the case may be*], being the fee [*or* fees] due to him for having attended as a medical witness at an inquest holden before me this day of , upon the body of , about the age of , who was found dead at , [*or other particulars or description*], and at which said inquest the jury returned a verdict of

(Signed) Coroner.

Witness by me of

To the Overseers, &c. &c.

So few are the boons accorded to the medical profession by the Legislature, that even this one, small as it is, deserves gratitude and thanks are due to the honourable Member for Finsbury for his assistance in procuring it. Let it be well remembered that, now when the service of medical men is compulsory and paid for, it behoves each and every member to take care that he be qualified to give evidence in a court of law. He cannot now shrink from the duty by sending a substitute to stand the brunt of a cross-examination. We would advise old and young to study medical jurisprudence with more care than they have hitherto done. Sat verbum.

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

The members of the *Bristol* Council have taken into consideration the proposed connexion between the Eastern Society and the Provincial Medical and Surgical Association, and are of opinion that it is at direct variance with the great principle of the Association and destructive of that unity of design and operation so essential to its efficiency; and moreover that it would tend to embarrass without proportion-

ally benefitting the general arrangements of the Association.

The Council are not aware of any peculiar advantages attending a partial connexion that would not be better attained by the complete junction. It has been urged indeed that the Association is becoming "too numerous" and the duties consequently devolving, too heavy to be discharged by our honorary and excellent secretaries. The Council can not imagine that numbers can be regarded as an evil—every addition of a name to the society they have been accustomed to hail as an accession of strength and respectability, and indicative of the increasing prosperity of the Association.

But admitting the validity of the objection, it is quite obvious that the proposed connexion would complicate rather than simplify the affairs of the Association, rendering necessary separate books, accounts, &c. Whereas, on the other hand, were the Association so fortunate as to embrace the whole of the provinces (by no means a problematical supposition), it is presumed that our secretaries, under the present constitution, would be found equal to such augmented duties.

Considerations of economy, and still more a regard to the strict maintenance of that harmony which has hitherto characterised all the proceedings of the Society, are strongly in favor of the latter arrangement. It may not have occurred even to the members of the Council, that by the terms actually suggested (two thirds of the subscriptions of the Eastern Society being paid into the general treasury) the remaining one-third, that is, one hundred in every three hundred pounds, may be considered as virtually lost to the Association, and moreover that confusion would be liable to arise from the introduction of two classes of members with different rates of subscription.

Under the influence of these impressions, the Council are decidedly in favor of an absolute union: and are convinced that, unless such junction be effected, the general interests of the Association will be better promoted by its remaining as heretofore a distinct and independant Society. At the same time the Council are anxious to obtain the co-operation of so large and influential a body of practitioners; should therefore our Eastern brethren upon reconsideration be disposed to adopt the more comprehensive view of the question; and in compliance with the sentiments so generally entertained and expressed by the several local Councils, join our ranks as common members of one Association, we shall be most happy to hold out the right hand of fellowship.

Signed on behalf of the Council,

WILLIAM HUTTLING.

Bristol, 13th July, 1836.

Remarks. Matters having come this length, we see little chance of a union of the two Associations. The younger branch having tasted independence, and enjoyed a separate existence, will hardly give these up, and suffer itself to be merged in the parent institution. We would suggest that the two Associations, if they remain distinct, should meet every fourth year in the metropolis, to join their brethren of the capital in scientific communication, and friendly intercourse. It is a pity, indeed, that any distinction should be made between town and country, in medical associations. We are inclined to agree with our contemporary of the Lancet, that a National Association of Medical Practitioners, meeting sometimes in London, and at others, in the large provincial towns, would be preferable to the present plan.

NEW FARTHING CLUB; OR METROPOLITAN INFINITESIMAL DISPENSARY.

A prospectus of this important institution has just reached us. It is to be under the direct patronage of a Prince of the Blood, a distinguished EARL, and many of the nobility and gentry. Its own merits, however, will insure it universal approbation and support. The superintendence of the Dispensary is placed in the hands of four of the most experienced HOMŒOPATHISTS of this country. It is on a plan so much su-

perior to the penny-clubs, now spreading over the country, that it will soon supersede them all. The subscription is to be only *one farthing* per head per annum! We may calculate that, taking the rich with the poor, there is an annual expenditure, in London, of twenty shillings per head, on medical attendance and medicines—and as the Metropolitan Dispensary will do away entirely with the heavy fees and long bills of physicians, surgeons (excepting for operations), apothecaries, and chemists, the saving to the public of this capital will be more than a MILLION ANNUALLY!!

There can be no doubt that the whole population will subscribe at once; but, under such patronage, a charter of incorporation will certainly be obtained next session, and thus its success will be secure.

Four homœopathic laboratories are to be established, namely, at the Chelsea Water Works, on Primrose Hill—at the New River Head—at South Lambeth—and at Hampstead. From these sources infinitesimal doses of the choicest homœopathic remedies will be daily issued, not only for the cure, but for the prevention of all diseases. Thus it is calculated that, when scarlatina breaks out, a daily solution of twenty grains of belladonna in the Chelsea reservoir, will protect all individuals (within the range of that company) against the scarlet fever, besides curing those who have actually caught the disease. If cholera re-appears, a lump of camphor is to be thrown into each of the four reservoirs, the emanations from which will soon check the Asiatic pestilence.*

The great beauty of the infinitesimal system is this, that each remedy will only grapple with, or prevent those diseases that are of its own nature—"SIMILIA SIMILIBUS CURANTUR." Thus a few grains of aconite daily dissolved in each of the reservoirs, will cure or prevent all the aconite diseases of this overgrown metropolis, without producing any effect on those in health, or modifying any other diseases or remedies.

* See Dr. Uwins' Pamphlet.

The saving of money will be the smallest part of the benefits which must flow from this most fortunate discovery. In a few years, all diseases, excepting those resulting from casualties, will disappear, or nearly so, and the value of life will be so enhanced, that the insurance offices will be able to reduce their premiums nearly one half! The grief, anxiety, and sorrow of families, for the loss of children, &c. will be prevented, as all people will then die the death of Nature, far beyond the obsolete boundary of three-score years and ten.

It is true, however, that there is no unmixed good in this world. Certain orders of society, now flourishing, will be reduced to beggary. The Apothecaries' Company (who are getting up a petition to Parliament against homœopathy) will be ruined by the "atomic doses" of the Infinitesimal Dispensary. The College of Physicians, being ruined already, think it useless to remonstrate. The College of Surgeons, though they will still have the monopoly of operations, are preparing, nevertheless, to petition the legislature, because they well know that, though surgery is their *profession*, physic is the best part of their *practice*. The apothecaries may, of course, shut up shop—and all those beautiful drug-palaces, whose windows, at night, look like constellations of etherial fire—

"flammisque imitante pyropo"—

must be converted into gin-shops or soda-water manufactories. It is to be hoped that Government may, in charity, grant a free passage to Australia for, at least, twenty thousand ALLOPATHICS, who will thus be thrown out of work in this metropolis.

These are little specks of evil attendant on a public—a universal blessing. The homœopathic superintendants have humanely determined to station one of their elèves, with a few small vials and pots, some miles beyond Oxford, in order to medicate the stream of the Thames, for the benefit of the University, Maidenhead, Windsor, Kingston, Richmond, and the various towns along the river as far as Gravesend. It is calculated that a scruple of oxymuriate

of mercury and three pints of fluid extract of sarsaparilla thrown into the Thames at Fulham, will prove a powerful alterative for all those who drink the water supplied by the Chelsea and South Lambeth Companies. A much smaller quantity will do for the New River Head. Infinitesimal Dispensaries will, without doubt, be established in all the great cities and towns of England. And, as the present race of practitioners will certainly be the last of their kind, so our great medical schools, and even our hospitals will shortly vanish from the scene. Homœopathic doses of medicine will naturally require but "atomic doses" of the science on which medicine depends. Indeed we see no reason why, on the homœopathic system, we should undergo the drudgery of studying anatomy, physiology, therapœia, or chemistry. A very few medicaments, divided and subdivided into inappreciable tenuity, are endued with the power of penetrating the most minute tissues of the human fabric—with the instinctive sagacity—the more than chemical affinity, of searching out, seizing, and coalescing with their "SIMILITUDES" in these remote recesses,—and there neutralizing their morbid qualities, and expelling them ultimately from the body! If this be not the millennium of medicine, we can form no idea of what a millennium is! HOMŒOPATHY has, we conceive, brought us to the verge of this happy epoch—and the infinitesimal physician is entitled to the infinite gratitude of mankind!

P.S. We have just learnt a piece of curious information. It is this:—ever since the new Poor Law Act came into operation, a celebrated homœopathist, of this metropolis, has been giving lectures on the infinitesimal art, to pupils who have "passed the Hall," and who are qualifying for the office of "contract doctors" throughout the provincial districts. We have now a solution of the low rates at which these UNDERTAKERS contract to attend the sick poor. The homœopathic system will enable these practitioners to beat the ALLOPATHICS clean out of the field! The training requires about six weeks, and the whole apparatus medicaminum consists of a few bottles of medicated mustard seed, labelled "homœopathic pills." Our informant shewed us a single formula, and the *mode* of preparation is the same in all. Five grains of extract of aconite are dissolved in a pint of distilled water, and the solution is poured off clear. Into this is put a pint of white mustard seed. In a few hours the seeds swell and absorb the whole of the solution. They are then spread out in the open air, when they soon shrink back to their original dimensions, being, however, impregnated with the aconite, and fit for use. The dose is from 1 to 10 of these aconite pills. The mustard seed is medicated or imbued with all other articles of the homœopathic pharmacopœia in the same way. The cost of physicing a large parish on the "atomic plan," will, it is supposed, not exceed half-a-crown per annum.

HÆMORRHAGE FROM THE MEDULLA OF THE HUMERUS AFTER AMPUTATION.*

Mr. Baddeley communicates this brief notice of the case to our contemporary.

On the 23rd December, 1835, a gunner of the horse artillery, in the act of springing his staff, had his fore-arm so shattered by the sudden explosion of the gun, that it became necessary to amputate it above the elbow joint, which was performed 20 minutes after the accident.

A troublesome hæmorrhage supervened; and, on opening the stump two hours after, to discover the source, it was found to originate from the medulla of the bone, from which joint was seen an arterial stream of the size of a small crowquill, which resisted a variety of methods adopted to check it, nor was it till after the marrow had been destroyed to the depth of a quarter of an inch by the actual cautery, that the bleeding entirely ceased.

At the termination of a week, there had been no recurrence of the hæmorrhage, and the stump was suppurating.

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* India Journ. March 1, 1836.

SIXTEENTH REPORT OF THE DUNDEE LUNATIC ASYLUM.

(EFFECT OF FRIGHT.)

The following short extract from this report embraces a useful caution as respects the treatment of young people, whether at school, or during their apprenticeship.

We admitted an interesting little boy, aged fifteen years;—when twelve years of age he was placed as an apprentice to a light, clean business. A trifling article being one day amissing, his master locked up all his apprentices in a dark coal-cellar. The children became dreadfully afraid. They were let out soon, with the exception of this unfortunate patient, who was detained till past midnight. From this time he became extremely nervous, melancholy, and for some time past has been imbecile. He will be for life a burden to his relatives and friends. It may be here mentioned, that the lost utensil was found in a safe place early on the following morning, which completely exculpated the boys. His forehead was extremely deficient, unlike the rest of his family.

The report itself is satisfactory, and creditable to the professional talents of Dr. Nimmo and Mr. Macintosh.

MEDICAL CLUBS.

We have often adverted to the redundancy of the medical profession, and the misery as well as mischief which are likely to result from such plethoric state of our ranks. The proposals of club societies or dispensaries, are one of the signs of the times, and closely connected with the redundancy in question. There are now so many hands out of work, that HEADS will be exerted in devising some new means of providing provender for the belly. The consequence will be, and, we fear, must be, that there will always be found, in the medical profession, a sufficient number of individuals who will embrace any plan, however ignoble, that may promise the means of even a wretched subsistence. The contract doctors, under the new poor-law system, offer an illustration, and the penny-clubs another. That many who propose these dispensaries have good intentions, we have no doubt. No one, for instance, can suppose that such a man as Dr. Hodgkin, would approve of them, if he did not, in consistency do so. But men's intentions may be good, and the result of their actions may be evil. This will be the case, in the plan of Mr. Smith and others for self-supporting dispensaries. Even if these institutions could be kept to their original boundaries, much detriment will accrue to the medical practitioner, whose avocations may lie among the humbler classes of society. But the circle will daily spread, till it embraces a very considerable portion of the middling classes, who now furnish a fair living for the general practitioner.

Mr. Smith proposes that a dispensary should be established in each market town and large village, for the supply of medicines and attendance to those "who cannot afford to pay *in the usual manner*, for advice and drugs." What kind of indefinite line is this? Again, those who are to be admitted on the free class, and who pay annual subscriptions, are to be so admitted "on obtaining a proper recommendation." Every body knows how easily a recommendation may be obtained. Great numbers, who are well able to pay the doctor, will get on this free-class list, at the expense of a mere trifle—and still greater numbers will obtain entirely gratuitous assistance, who are now able to contribute something to the junior medical practitioner, who is obliged to work his way up from one class to another. Thus one medical man, for a yearly income of, perhaps, not more than one hundred pounds, will take the bread out of the mouths of three or four other men, who might have received two or three hundred pounds each per annum from the same district.

This, in itself, would be a serious evil, but it would not constitute a hundredth part of the injury which the

profession would sustain from this system. No sooner will these clubs be established for the labourer and pauper, than will others rise among the artisans, shop-keepers, and tradesmen. We have, at this moment, a plausible pamphlet lying on our table, projecting clubs for all classes, from the peer to the peasant, on very easy terms. It is calculated that, in the army and navy, when soldiers and sailors are not exposed to more than the common sources of sickness, there will be usually absent 5 per cent. on the sick-list. Estimating this proportion at double this—or even 15 per cent., in private life—and supposing that one hundred families club together for medicines and medical assistance, at the rate of twenty shillings per head—and supposing that the families average six individuals each, here will be an annual income of £600 for a medical man! The expense of medicines, in all probability, will not exceed one hundred pounds, at the very utmost, so that there will be a clear income of 500 pounds per annum! How many hundreds of our starving brethren would jump at such a scheme! This, we prognosticate, will be the result of the penny-clubs, as they are called. They will prove the root of evil, from which branches will shoot aloft, and adumbrate the whole field of medicine. All admonitions—all appeals to a sense of honour—or a sense of respect for the profession, will be vain. There will always be such an overplus in the ranks of medical society, that numerous volunteers will be ever ready to enter for this degrading service. There is but one remedy—one preventive check—in our humble opinion; but it will be condemned by our ultra-liberal brethren, who advocate the removal of every impediment to the ingress of all aspirants for medical fame and fortune. We have, however, often broached the subject before. It is the extension of medical education to its utmost limits. There is now a redundancy;—and why?—Because it is calculated by parents and guardians that the entrance into the medical profession is cheaper, and more certain than into the church, the law, or other genteel walks of life. This impression must be removed by shewing them that the expense of time and money will be much greater than it has hitherto been,—otherwise the influx will continue to increase—the club-system will spread, and two-thirds of the rising generation of practitioners will be swamped!

This club-system, in fact, is rapidly extending through all grades of society, and is one mark of a redundant population. We see a thousand people combine together, to erect a fine house, and have dinners and wine at a very cheap rate. It is well ascertained that not a fourth of the subscribers will ever, *at any one time*, make use of the club—and the subscriptions of the other three-fourths keep up the establishment, and enable the actual club-goers to live in luxury and at little expense. Will this system not extend to physic as well as to food? That it will! The Hebrews, who are a knowing and economical race, have long acted on this system. A great proportion of the Israelites belong to clubs, where a medical man forms one of the contracting parties. The march of intellect and the *res angusta domi* of a redundant population, will convert some millions of Christians, in this country, into Jews, as far as medical clubs and contracts are concerned. It is not generally known, but we know it, for a certainty, that several physicians in this metropolis, who hold their heads high in the profession, are in the habit of attending families by the year, for a moderate sum. What is this but a CLUB on a small scale?—Those who embark in this destructive club-system, may subsist for a while, at the expense of their neighbours; but ultimately the ruin will reach themselves, and the attempt to retrace their steps will be vain.

We have said nothing of its detrimental effects on the *science* of medicine. It will be as injurious to that as to the respectability of its professors. This struggle to physic people cheap, will take away the stimulus to discovery. The contract being *fixed*, the great object is to discover the *cheapest* way to work, and expensive medicines will seldom be employed. We remem-

ber a navy surgeon of the old regime, who had one bottle of medicine for the starboard, and another for the larboard watch. The first question asked, when a man came down to cockpit was—"What watch do you belong to?"—"Starboard, Sir." "Give him a dose out of No. 1." These bottles contained little else than sea-water and Epsom salts. One day, the doctor fell overboard. An arch quarter-master ran up to the officer on watch, and told him the doctor had fallen into his own medicine-chest. The contract doctors will probably have a bottle for each parish of the union—or they may even go so far as to have a differently-coloured bottle for the females. There will be great advantage in nauseous medicine, in these cases. The paupers will have as great a dread of it as of the work-house—perhaps greater.

PATRONAGE OF QUACKS.

We thought that, in England, quackery flourished with unexampled vigour.—But we were mistaken. It is rarely that the quack here is able to entrap the regular physician or surgeon into an open patron, certifying under his hand and seal the mighty virtues of an unknown composition, vended for gain, and for gain alone. Not so beyond the Atlantic! We were utterly astonished to find an impudent PANACEA bolstered up with the names and certificates of some of the first authorities, in the medical profession, of the United States! We were thunderstruck on perusing such documents as the following—some twenty or thirty being obtained by a noted nostrum-vender in the land of freedom.

"CERTIFICATES OF RECOMMENDATION.

FROM DOCTOR N. CHAPMAN,

Professor of the Institutes and Practice of Physic and Clinical Practice in the University of Pennsylvania, President of the Academy of Medicine of Philadelphia, &c.

I have within the last two years had an opportunity of seeing several cases of very inveterate ulcers, which, having resisted previously the regular modes of treatment, were healed by the use of Swaim's PANACEA; and I do believe, from what I have seen, that it will prove an important remedy in scrofulous, venereal, and mercurial diseases.

N. CHAPMAN, M.D.

FROM DOCTOR W. GIBSON,

Professor of Surgery in the University of Pennsylvania, Surgeon and Clinical Lecturer to the Alms-House Infirmary, &c. &c.

I have employed the PANACEA of Mr. Swaim, in numerous instances, within the last three years, and have always found it extremely efficacious, especially in secondary syphilis and in mercurial disease. I have no hesitation in pronouncing it a medicine of inestimable value.

W. GIBSON, M.D.

FROM DOCTOR VALENTINE MOTT,

Professor of Surgery in the University of New York, Surgeon of the New York Hospital, &c. &c.

I have repeatedly used Swaim's PANACEA, both in the Hospital and in private practice, and have always found it to be a valuable medicine in chronic, syphilitic, and scrofulous complaints, and in obstinate cutaneous affections.

VALENTINE MOTT, M.D.

FROM DOCTOR WILLIAM P. DEWEES,

Adjunct Professor of Midwifery in the University of Pennsylvania, &c.

I have much pleasure in saying I have witnessed the most decided and happy effects in several instances of inveterate disease from Mr. Swaim's PANACEA, where other remedies had failed—one was that of Mrs. Brown.

WM. P. DEWEES, M.D."

Eheu, jam satis! We are mortified and grieved, beyond measure, to find professional *propriety* (to give it no other name) at so low an ebb among our brethren in America! This admonition from Europe will surely rouse

the faculty of the United States to some sense of the duty they owe to their brethren throughout the world.

Spontaneous Combustion.

An instance of spontaneous combustion is reported in the French papers, to have taken place at Aunay, in the department of Avalon. A very fat woman, aged 74 years, and addicted to drinking brandy at 27 degrees, lived alone, and one evening returned home as usual, but, as she did not appear among her neighbours the next morning, they knocked at her door. No answer being returned to repeated demands, they summoned the mayor, who forced the door, and exposed a horrible spectacle, accompanied by an extraordinary smell. Near the chimney laid a heap of something burnt to cinders, at one end of which was a head, a neck, the upper part of a body, and one arm. At the other end were some of the lower parts, and one leg, still retaining a very clean shoe and stocking. No other traces of fire were to be seen, except a blue flame which played along the surface of a long train of grease, or serous liquor, which had been produced by the combustion of the body. The mayor found it impossible to extinguish this flame, and summoned all the authorities; and, from the state of the apartment and comparison of circumstances, it was concluded among them that, previous to going to bed, for which she had evidently been making preparations, the woman had been trying to ignite some embers with her breath. The fire communicating with the body by means of the breath, combustion probably took place, and would appear to confirm an opinion entertained by several learned men, that that which is called spontaneous combustion of the human frame, never takes place without the presence of some ignited body near the person predisposed to combustion. A surgeon who bled an habitually drunken person, accidentally put the blood extracted near a candle, when immediately a blue flame appeared on the surface, which he found extremely difficult to extinguish.*

There is nothing in the preceding case inconsistent with probability, whatever might have been the actual fact. Numerous experiments have shewn that the expired pulmonary vapour becomes strongly charged with volatile substances taken into the system, and alcohol, phosphorus, &c. are readily detected in it. The foul breath of persons addicted to improper feeding is not merely the consequence of depraved secretions in the air-passages, but of the exhalation of odorous matters from pulmonary vessels. There have been now so many instances of spontaneous combustion placed on record, that it is impossible to doubt their occurrence. But they almost all happen on the Continent, and the majority, if our memory serves us, in France.

Tunnels on Rail-Roads.

A question of some importance, as respects the health of passengers travelling on rail-roads, was lately discussed before a Committee of the House of Lords. Several medical gentlemen were examined and cross-examined, as to the probable effects of passing rapidly through long tunnels, placed at a considerable distance below the surface of the earth. The inconveniences or dangers of these subterraneous transits may be contemplated under three different points of view: viz. the transitions of temperature —impurity of air—and the reverberations of sound, as affecting the nervous system of sensitive travellers or invalids. It is well known that, at a depth of 80 feet below the surface of the earth, the temperature remains stationary through Summer and Winter, and is about the mean temperature of the climate. In this country, therefore, the temperature of the Brighton tunnels would be about 52° or 53°. In Summer, then,

* Athenæum, July 30th.

when the thermometer stood at 76°, and in Winter, when it stood at 32°, the transition would be 20° at the entrance, and 20° back again at the exits. The question is, will a sudden vicissitude of 20 thermometrical degrees be safe? We rarely experience such a vicissitude in this climate, even when spread over a whole day, and yet we are accustomed to consider atmospheric transitions as a source of much illness in England. But, it may be said, this is not worse than going out of a crowded assembly into the cold night air. This may be true; but it does not lessen the objection, because there is hardly a more fertile source of pulmonic, rheumatic, and neuralgic affections than these very occurrences. Besides, it is questionable whether there is ever a transition of 20° in going out or in of crowded theatres or assembly-rooms.

In mitigation of the objections to the tunnels, it has been urged that, on the Brighton road, the transit will occupy only about a minute, and that, during that time, the inside passengers could keep the windows closed. The transit would certainly be less hazardous to the inside passengers than to those on the outside. We imagine, however, that the heat of the engine and the fumes from the coke will raise the temperature at least ten degrees, besides proving very suffocating in a narrow and confined space. Thus, in Winter, the passengers might plunge from 32° to 62°—and, on emerging, would plunge at once from an atmosphere of 62° to one of 32°—or 30 degrees' difference of the thermometer.

How far the air of a tunnel, half a mile in length, may become vitiated by the breathing of passengers and the emanations from coke, we cannot pretend to say. Neither can we say whether or not a free ventilation could be secured in such a long trajet. Sir A. Carlisle and Dr. A. T. Thomson were of opinion, that the air would become more and more vitiated, and that it would be nearly stagnant. Dr. J. Johnson declined to give an opinion on this point. As the train must displace a volume of air equal to itself at each transit, besides producing a certain degree of current, it is probable that the stagnation and vitiation of the air may not be so great as is imagined.

The effects of reverberation of sound on sensitive people, while passing the tunnels at a rate of 25 miles an hour, were alluded to only by Dr. Johnson, who quoted a passage bearing on this point, from his own description of the Manchester Rail-road, published two years previously. He was cross-questioned by Counsel on this point, by referring to the Grotto of Posillipo, near Naples; but the comparison was very far from being *ad rem*.

The cross-examining junior Counsel then ingeniously shifted his ground to the atmospheric vicissitudes, and quoted a passage from one of Dr. Johnson's own tours among the Alps, where a transition of more than 50 degrees was experienced between Martigny and the Great St. Bernard, without any ill effects. The fact was acknowledged, and no comment was made at that time by the witness. The opposing Counsel afterwards took care to draw forth an explanation. The Alpine transition was spread over a space of 28 miles of laborious ascent, and occupying a period of nearly six hours. Besides, the tourists were accustomed to great transitions, and were fortified against them by daily exercise in the open air. Such a transition, occurring between London and Brighton, would be very apt to prove highly detrimental to tender invalids, or people affected with pulmonary or rheumatic complaints.

Considering, however, how much doctors differ on all points of theory or practice, it is rather surprising that a cloud of medical witnesses were not brought before their Lordships, to prove that atmospheric vicissitudes are innocuous, and the trajet of tunnels are beneficial to health, as affording shelter from sun, rain, and cold.

BIBLIOGRAPHICAL RECORD;

OR,

Works received for Review since last Quarter.

1. Thoughts on Physical Education, and the true Mode of improving the Condition of Man, &c. By CHARLES CALDWELL, M.D.; with Notes, by ROBERT COX, and a recommendatory Preface by GEORGE COMBE. Duodecimo, pp. 190. Edinburgh, 1836.

2. A Dictionary of Terms Employed by the French in Anatomy, &c. &c. &c. By SHIRLEY PALMER, M.D. Part the Second. Birmingham. June, 1836.

3. An Engraving of John Hunter, executed by W. O. GELLER, from a painting by Sir Joshua Reynolds, in the College of Surgeons.

☞ *This is an admirable engraving, and published on very moderate terms.*

4. CATARACT: a familiar description of its symptoms, nature, and ordinary treatment, &c. &c. By JOHN STEVENSON, Esq. Second Edition, carefully revised and enlarged. Small Octavo, pp. 139. Highley, June, 1836.

5. A Series of Anatomical Plates, &c. &c. By DR. QUAIN. Divis. 2. Arteries x. xi. July, 1836.

☞ *The delineation of the arteries continues to occupy these Plates. They sustain their character for beauty and utility—no trifling praise. We would suggest the avoidance of deep shading as much as possible. Bold, broad outline is most effective in diagrams.*

6. A History of British Quadrupeds. By THOMAS BELL, F.R.S. F.L.S. Lecturer on Comparative Anatomy at Guy's Hospital. Part I. Price 2s. 6d. Illustrated by a wood-cut of each species, and numerous vignettes. London. Sherwood and Co. July, 1836.

☞ *This part is occupied with the genus* VESPERTILIO. *The vignettes are executed beautifully.*

7. Suggestions for obtaining the best Medical Advice at the least possible Expense. Addressed to Persons of limited Income, but respectable Station in Society. Octavo, pp. 8.

☞ *The object appears to be the formation of a kind of joint-stock company, for securing doctors and drugs of good quality (and fairly paid) by annual contributions. It is, after all, a benefit-society. We doubt its practicability—or, at all events, its success. We have made some observations on the subject in the present Number.*

8. St. Thomas's Hospital Reports. By JOHN F. SOUTH, Assistant-Surgeon. No. 4, June, 1836, price 2s. Sherwood and Co.

9. Elements of General Anatomy; translated from the last Edition of P. A. Beclard, Professor of Anatomy to the Faculty of Medicine in Paris, with Notes and Corrections, by ROBT. KNOX, M.D. F.R.S.E. Lecturer on Anatomy, &c. Edinb. Octavo, pp. 396, Maclachlan and Stewart, 1836.

10. Sixteenth Report from the Dundee Lunatic Asylum, ending May 31st, 1836.

11. A History of British Quadrupeds. By THOMAS BELL, FRS, &c. Part II., illustrated with Wood-cuts. August, 1836.

☞ *This Part concludes the subject of Bats, and includes the Hedgehog and Mole. The work well deserves the patronage of the public.*

12. Researches in Medicine and Medical Jurisprudence. By JOHN B. BECK, M.D. Second Edition, New York, 1835.

☞ *These essays are five in number, all of which have previously appeared in print:—1, Infanticide—2, Acute Laryngitis—3, Non-contagion of Yellow Fever—4, Onychia Maligna—5, Ulceration and Perforation of the Stomach. Some of these we shall notice.*

13. The Practical Anatomy and Elementary Physiology of the Nervous System; designed for the Use of Students in the Dissecting-Room. By JAMES CLARK, Demonstrator of Anatomy in St. Thomas's Hospital. Octavo, pp. 357. Longman and Co. 1836.

14. The Proofs of Infanticide considered; including Dr. Hunter's Tract on Child-Murder, with illustrative Notes, and a Summary of the present State of Medico-legal Knowledge on that Subject. By WILLIAM CUMMIN, M.D. Lecturer on Forensic Medicine, &c. 18mo, pp. 95. Longman and Co. Aug. 1836.

15. Introductory Lecture delivered to the Mathematical Class at the Royal School of Medicine and Surgery at Birmingham. By the Reverend W. MORELL LAWSON, M.A.

☞ *We are glad to find that the exact sciences are beginning to be blended with the artes conjecturales. Birmingham has here given a lesson to London.*

16. Inaugural Dissertation on the Utility of Dispensaries, &c. By JOHN NELSON, M.D. Octavo, pp. 32. 1836.

17. A few Hints on the Principle of Provident or Self-supporting Dispensaries, and its Adaptation to the Medical Relief of the Poor. By CHARLES WILKINSON, M.D. 12mo, sewed, pp. 47. 1836.

18. Address to the Governors and Subscribers of the Charing-Cross Hospital, on some extraordinary Proceedings that have lately taken place at that Institution, &c. By T. J. PETTIGREW, F.R.S. &c.

"Non nostrum inter vos tantas componere lites."

19. Researches into the Physical History of Mankind. By JAS. COWLEY PRICHARD, M.D. F.R.S. &c. 3d Edit. Vol. I. Aug. 1836.

☞ *This edition is almost entirely re-written, and greatly enriched by modern additions to our knowledge.*

20. Principles of Pathology, and Practice of Physic. By JOHN MACKINTOSH, M.D. Lecturer &c. *Fourth Edition*, 2 Vols. 8vo, pp. 524—546. Sept. 1836.

☞ *These Volumes came too late for notice this quarter (18th Sept.); but we shall introduce a short article in our next Number, especially on the pathology of cholera.*

21. A very Comprehensive Index to Dr. Davis's Obstetric Medicine. 4to, stitched, 1836.

☞ *It is very comprehensive.*

22. Manuel de Médecine Operatoire, fondée sur l'Anatomie Normale et l'Anatomie Pathologique. Par S. F. MALGAIGNE, M.D. &c. Second Edit. revised, corrected, and considerably enlarged. Baillière, Regent-street, 1836.

☞ *This edition is very considerably improved, and the author appears to have omitted no labour or pains, "pour maintenir l'ouvrage au niveau de la science." We can confidently recommend this manual.*

23. A concise Anatomical Description of the Arteries of the Human Body, together with full Directions for cutting down upon and securing the several Arterial Trunks; for the Use of Students in Anatomy. By P. BENNETT LUCAS, M.R.C.S. &c. 12mo, pp. 116. London, 1836.

☞ *This is really what it purports to be, a concise description of the arteries of the human body. And it is as clear as it is concise. Altogether, it is a very excellent little manual for the student to dissect by.*

24. The Report of a Committee on the new Poor-Law Act, appointed by the Provincial Medical and Surgical Association, &c. Octavo, stitched, pp. 38. Worcester, 1836.

25. *Analytical Anatomy.*—The Circulation of the Blood, as found in the Human Fœtus, and compared with that in the Five Classes of Vertebral Animals. By G. J. MARTIN SAINT-ANGE, D.M.P. Translated from the French, by T. W. JONES, D.M.P. In Folio.

Closed on the 19th September.

EXTRA-LIMITES.

DR. RYAN'S FORMULARY OF HOSPITALS.

To the Editors of the Medico-Chirurgical Review.

GENTLEMEN,—I have seen in your last number, a condemnatory notice by an anonymous correspondent, of my translation of "A New Practical Formulary of Hospitals, &c." I was the more surprised at this, knowing you had previously pronounced the following opinion of the work.—"This is one of the most valuable little vade-mecums that we have ever seen. It is indispensable for the practitioner of every grade and denomination."—*Medico-Chirurgical Review, October*, 1835.

In nine months after the date just given, and when a second edition of the work is announced, you think it "justice to the public," to allow some anonymous scribbler, to give the most unqualified contradiction to your own opinions; and to occupy three pages in vilifying and misrepresenting the work you so highly praised.

It is clear, that if your opinion of the book be correct, that of your correspondent must be false or malicious, as it is totally opposite to your own.

It is not usual, so far as I know, for reviewers to allow their criticisms to be questioned, or their decisions to be reversed; indeed I have never before known an instance of the kind. You pronounce the Formulary of Hospitals the best you have ever seen, while your candid critic declares, "it is, without exception, one of the most inaccurate, and, consequently, useless publications ever presented to the medical public." What a specimen of impartial British reviewing is this, and in the same journal too! It is time to expose this system as the bane of medical literature.

Permit me to observe, that I have often received the severest strictures on works of which I had conscientiously given a favourable opinion; but I considered such communications an insult to my judgment, and only worthy of a fiery ordeal. They were generally the effusions of spleen, or dictated by some unworthy motive; and among them were strictures on some of the senior Editor's own productions, as severe and unjust as those of which I now complain; and I am by no means certain, that some of them were not in the hand-writing of your correspondent and critic T. P. I need not observe that there are envious and disappointed spirits in our profession, who are ever ready to fling dirt at those, whose talents and acquirements, have placed them high in public estimation.

It is much to be regretted, that nearly all our medical periodicals, are too ready to admit such reviews, and nearly all are influenced by mean, party and paltry motives, which are most injurious to the advancement of science. After long observation and ample evidence of the workings behind the scenes, I have come to the conclusion, that by far the greatest portion of medical criticism in this kingdom is beneath the notice of any man of an independent mind, or of standing in the profession. You belong to the honourable few to whom these remarks do not apply, and yet no doubt through accident or inadvertency, you allow your pages to be defiled by an interested and unprincipled writer.

Before I offer a few words in reply to this considerate critic, permit me to allude to the other notices "of the most useless book ever published," in his opinion!!,

The British and Foreign Medical Review has strongly recommended the work; and even the Medical Gazette, the most unfair and dishonest review ever published, in any country, after a vast deal of abuse (for it has invariably abused all my works, and those of every one else who is not of its clique, notwithstanding the favourable criticisms of the respectable journals both at home and abroad), designated the Formulary of Hospitals "a Polyglot Pharmacopœia." That "veracious and trustworthy critic," has predicted the failure of all my works, every one of which has been republished abroad, and passed through different editions at home. He was most furious a few months since on the appearance of a new edition of my Jurisprudence, he pronounced it the worst book ever published, because at that moment, his employers were reprinting, without note or comment, the last American edition of Dr. Beck's most comprehensive work on the same subject! I allude to these facts to prove the truth of a

former statement; to expose the contemptible conduct of some of our Medical Reviewers, and to shew them how much I fear their criticism.

But unfair criticism is most injurious to authors and to medical literature. An author publishes a work after many years research and observation, at an expense by no means trifling; and the moment it appears, it is abused because he does not belong to a certain faction in the profession, or because he did not give the work to a certain publisher. This is our happy system of reviewing and encouraging medical authors. The sale of their works is injured or destroyed, and they are many pounds sterling out of pocket! But if works possess intrinsic merit, they cannot be suppressed by venal and hireling critics, among whom stands your correspondent.

Of all the incompetent and ignorant critics I have met, this one is the most perfect example, as I shall prove, I think, to the conviction of your readers.

He commences by charging me with the typographical blunders, every one of which I had corrected, though too many were allowed to remain by the carelessness of the printer, but which are corrected in the subsequent edition. He goes on to state, "that the want of accuracy is inexcusable where the labour of the writer is only that of translation, and mere transcription." It is evident to me that the reviewer has never seen the original work, or that he is grossly ignorant of the French language. Had he known, that the name of each medicine is given in popular French, and that hundreds of them were to be found only in few dictionaries of terms, either ancient or modern, he would have been aware, that there was somewhat more labour to perform than mere translation or transcription. In fact the labour and trouble were so great, that I alluded to them in my preface in these words.

"The translation of this work from French into Latin and English was a troublesome undertaking. The names of many thousand medicines, seldom employed in this country, were given in popular French, and were to be rendered strictly scientific. To effect this, much research was necessary, and a vast deal of reference inevitable, which might have been avoided, were the scientific names given in the original text. It was, however, considered right, to give a literal translation in English and Latin." So much for the mere translation and transcription of the original. It was this mere transcription that led the reviewer to betray his ignorance as I shall shew hereafter. Another Arcadian of his class, denied the accuracy of my statement that thousands of medicines seldom used in this country were mentioned, (*British and Foreign Medical Review, July*, 1836), and he proved his case by referring to the index; but had he looked to the text he would have found my statement literally correct, as numerous medicines named after physicians or certain places are given, which I, of course, excluded from the index.

But your critic boldly states the whole work is inaccurate, "where ounces are put for drachms, and *vice versa*, or where weights are altogether omitted; or where the directions of one article apply to another; or where the substances blended together are incompatible to be mixed. To make these blunders the more ludicrous, a list of twenty errata is given to shew errata contained errata." In proof of this wholesale and mendacious charge the reviewer quotes two of my own prescriptions, instead of any of the original ones belonging to the text.—[*See Medico-Chirurgical Review, July* 1836.]

This honest critic selects the only misprint in a whole page and last prescription, although the word guaiacum had been printed correctly four times in the preceding formulæ, and so just is he, that he would feign to saddle the blunder on the translator. Then comes his comment against different ingredients with a view of obtaining the effects of one and all of them, as if this were not an established axiom in every work on phamacology. I would advise him very strongly to study some one of them, even my translation for example, before he again betrays his superficial acquaintance with the subject.

In the second prescription the writer not only betrays ignorance, but even malice, for he wilfully misrepresents it. The original stands thus:—

℞. Panacis v. Fol. pulv., misrepresented
Panacis *v.* Fol. pulv.
Again, Tere intime, is misrepresented
Fere intime, &c.

It is manifest that the critic did not know the medicine in the first line, and as he could not find it in any of our English works on materia medica, shews the extent of his own resources, by misspelling it. He further makes me write magnesiæ calcia, for M. calcinatæ!!—Can such contemptible conduct be called criticism?

In the preceding extracts, may I also beg to inquire, where are ounces for drachms, *vice versa*, where the weights are altogether omitted, or where the directions for the use of one article apply to another, asserted by your reviewer? That there were too many typographical errors, nearly all insignificant, I have admitted already; but that your critic should wilfully add to them to bear out his unjust strictures, is what every honest man must reprobate.

As to his wholesale condemnation of the French, German, Italian, and American formulæ in the original work, it is perfectly unnecessary to reply, for I am in no way responsible either for their efficacy or accuracy.

In comparing my translation of the Formulary of Hospitals, to Dr. Thomson's Conspectus, and M. Ratier's Formulaire of the Paris Hospitals, he again betrays his ignorance, as these works are different from each other, though excellent manuals. Thus Dr. Thomson's Conspectus of the British Pharmacopœiæ contains no hospital prescriptions, M. Ratier's is confined to the French hospital formulæ and codex, while the condemned work is a universal formulary, containing that of M. Magendie, &c. But the new Formulary of European and American Hospitals cannot be injured by such a stult as your correspondent, it has already passed through two editions in France, and the same number in this country in nine months; it is much more comprehensive and cheaper than any other English work of the kind, and has nothing to fear from incompetent critics. I offer this defence of it, having introduced it to the notice of the profession in this kingdom, and as I have determined that it shall not be unjustly criticized with impunity.

I am, Gentlemen, your obedient servant,

4, Great Queen Street, M. RYAN, M.D
St. James's Park, Westminster, Sept. 1836.

In the last number of this Journal we inserted a critique from a correspondent, on Dr. Ryan's work, and mentioned that we had struck out several passages and expressions which we considered to be unnecessarily acrimonious. We greatly regret that we overlooked a kind of inuendo (the real meaning of which we are still ignorant of), respecting the PUBLISHER of the work. Had we noticed this, we certainly should have immediately run our pen through it—because we are conscious that the publisher of a book, and especially of a medical book, is not at all answerable for errors or faults of the author. The critic, in this instance, has travelled out of his proper path, and we have no hesitation in expressing our regret that the passage alluded to has appeared in our pages.

CHARTER OF THE UNIVERSITY OF LONDON.

The rough draught of this long expected Charter has just appeared, and we lay before our readers extracts from that part of it which relates to our own profession. We have not had time to consider it maturely, but we have little hesitation in averring that, if not materially altered, it will realize the hopes of the most sanguine medical Reformers.

"Now, know ye, that for the purpose of ascertaining, by means of examinations, the persons who have acquired proficiency in literature, science, and art, by the pursuit of such course of education, and of rewarding them by academical degrees, as evidence of their respective attainments, and marks of honour proportioned thereunto, we do, by virtue of our prerogative royal, and of our especial grace, certain knowledge, and mere motion, by these presents for us, our heirs and successors, will, grant, declare, and constitute during our royal will and pleasure, and all the persons who we may hereafter appoint to be Chancellor, Vice-Chancellor, or Fellows, as hereinafter mentioned, *one body politic and corporate*, by the name of the University of London, by which name such body politic shall have perpetual succession, and shall have a common seal, and shall by the same name sue and be sued, implead and be impleaded, and answer and be answered unto in every court of us, our heirs and successors.

And we do hereby further will and ordain, that the said body politic and corporate

shall consist of one Chancellor, one Vice-Chancellor, and such number of fellows or members of the senate as we shall from time to time appoint under our sign manual; and that our trusty and well beloved the aforesaid be the first chancellor the first vice-chancellor, and the said be the first fellows and members of the senate thereof.

That whenever a vacancy shall occur in the office of chancellor of the said university, either by death, resignation, or otherwise, we will, under our sign manual, nominate a fit and proper person to be the chancellor instead of the chancellor occasioning such vacancy.

That the office of Vice-Chancellor of the said University shall be *an annual office*, and the Vice-Chancellor hereinbefore named shall, at the expiration of one year from go out of office, and the said Fellows or Members of the senate shall, at a meeting to be holden by them for that purpose, on some day within a month before the expiration of the said office, of which due notice shall be given, elect one other fit and proper person to be the Vice-chancellor of the said University, and so from time to time annually; or, in case of the death, resignation, or other avoidance of any such Vice-Chancellor before the expiration of his year of office, shall, at a meeting to be holden by them for that purpose as soon as conveniently may be, of which due notice shall be given, elect some other fit and proper person to be Vice-Chancellor for the remainder of the year, in which such death, resignation, or other avoidance shall happen; such person to be chosen from among themselves by the major part of the Fellows present at such meeting, and to be approved of by the Chancellor of the said University for the time being.

That we reserve to ourselves to be the visitor of the said University of London, with authority to do all those things which pertain to visitors as often as to us shall seem meet.

That the Chancellor, Vice-Chancellor, and Fellows for the time being, shall have the entire management of and superintendence over the affairs, concerns, and property of the said University; and in all cases unprovided for by this our charter, it shall be lawful for the Chancellor, Vice-Chancellor, and Fellows, to act in such manner as shall appear to them best calculated to promote the purposes intended by the said University, and the said Chancellor, Vice-Chancellor, and Fellows shall, have full power from time to time to make and also to alter any by-laws and regulations (so as the same be not repugnant to the laws of our realm, or to the general objects and provisions of this our charter) touching the examinations for degrees, and the granting of the same, and touching the mode and time of convening the meetings of the Chancellor, Vice-Chancellor, and Fellows, and in general touching all other matters whatsoever regarding the said University; and all such by-laws and regulations when reduced into writing, and after the common seal of the said University has been affixed thereto, shall be binding upon all persons members thereof, and all candidates for degrees to be conferred by the same, all such by-laws and regulations having been first submitted to one of our principal Secretaries of State, and approved of and countersigned by him.

That all questions which shall come before the Chancellor, Vice-Chancellor, and Fellows, shall be decided by the majority of the members present, and the chairman at any such meeting shall have a vote, and in case of an equality of votes, a second or casting vote.

That no question shall be decided at any meeting, unless the Chancellor, or Vice-Chancellor, and five Fellows, or, in the absence of the Chancellor and Vice-Chancellor, unless six Fellows at the least shall be present at the time of such decision.

That at every meeting of the said Chancellor, Vice-Chancellor, and Fellows, the Chancellor, or in his absence the Vice-Chancellor, shall preside as chairman, or, in the absence of both, a chairman shall be chosen by the members present, or the major part.

That the said Chancellor, Vice-Chancellor, and Fellows for the time being, shall have full power from time to time to appoint, and, as they shall see occasion, to remove all necessary examiners, officers, and servants of the said University.

That once at least in every year the said Chancellor, Vice-Chancellor, and Fellows, shall cause to be held an examination of candidates for degrees, and on every such examination the candidates shall be examined either by examiners appointed for the purpose from among the fellows by the said Chancellor, Vice-Chancellor, and Fellows, or by other examiners so to be appointed; and that on every such examination the candidates

shall be examined in as many branches of general knowledge as the said Chancellor, Vice-Chancellor, and Fellows, shall consider the most fitting subjects of such examination.

And whereas it is expedient to extend the benefits of colleges and *establishments* already instituted, or which may be hereafter instituted, for the promotion of literature and science, whether incorporated or *not incorporated*, by connecting them for such purposes with the university created by this our royal charter. We do hereby further will and ordain that all persons shall be admitted as candidates for the respective degrees of Bachelor of Arts, Master of Arts, Bachelor of Laws, or Doctor of Laws, to be conferred by the said University of London, on presenting to the said Chancellor, Vice-Chancellor, and Fellows, a certificate from any of the institutions hereinafter mentioned, to the effect that such candidate has completed the course of instruction which the said Chancellor, Vice-Chancellor, and Fellows, by regulation in that behalf shall determine.

That such certificates as aforesaid may be granted from our college called London University College, or from our college called King's College, or from such other institution, corporate or unincorporated, as now is or hereafter shall be established for the purposes of education, whether in the metropolis or elsewhere within our United Kingdom, and as we, under our sign manual, shall hereafter authorize to issue such certificates.

And for the purpose of granting the degrees of Bachelor of Medicine, and Doctor of Medicine, and for the improvement of medical education *in all its branches, as well in medicine as in surgery, midwifery, and pharmacy*, we do further hereby will and ordain that the said Chancellor, Vice-Chancellor, and Fellows, shall from time to time report to one of our principal Secretaries of State what appear to them to be the medical institutions and schools, *whether corporate or incorporated*, in this our metropolis, or in other parts of our United Kingdom, from which, in the judgment of the said Chancellor, Vice-Chancellor, and Fellows, it may be fit and expedient to admit candidates for medical degrees, and on approval of such report by our said Secretary of State, shall admit all persons as candidates for the respective degrees of *Bachelor of Medicine and Doctor of Medicine* to be conferred by the said University, on presenting to the said Chancellor, Vice-Chancellor, and Fellows, a certificate from any such institution or school, to the effect that such candidate has completed the course of instruction which the said Chancellor, Vice-Chancellor, and Fellows, by regulation in that behalf shall determine; and it shall be lawful for the said Chancellor, Vice-Chancellor, and Fellows, from time to time, with the approval of one of our principal Secretaries of State, to vary, alter, and amend any such reports, by striking out any of the said institutions or schools included therein, or by adding others thereunto.

That the said Chancellor, Vice-Chancellor, and Fellows, shall have power to confer the several degrees of Bachelor of Arts, Master of Arts, Bachelor of Laws, Doctor of Laws, Bachelor of Medicine, Doctor of Medicine, and that such reasonable fees shall be charged for the degrees so conferred as the said Chancellor, Vice-Chancellor, and Fellows, with the approbation of the commissioners of our Treasury shall from time to time direct; and such fees shall be carried to one general fee-fund for the payment of the expences of the said University, under the directions and regulations of the commissioners of our Treasury, to whom the accounts of income and expenditure of the said University shall once in every year be submitted, which accounts shall be subject to such examination and audit as the said commissioners may direct.

That at the conclusion of every examination of the candidates the examiners shall declare the name of every candidate whom they shall have deemed to be entitled to any of the said degrees, and the departments of knowledge in which his proficiency shall have been evinced, and also his proficiency in relation to that of other candidates, and he shall receive from the said Chancellor a certificate, under the seal of the said University of London, and signed by the said Chancellor, in which the particulars so declared shall be stated.

Provided always, that all by-laws and regulations made from time to time touching the examinations of candidates and granting of degrees, shall be submitted for the consideration of one of our principal Secretaries of State, to be approved of by him.

And lastly, we do hereby for us, our heirs, and successors, grant and declare that these our letters-patent, or the enrolment or exemplification thereof, shall be in and by

all things valid and effectual in law, according to the true intent and meaning of the same, and shall be construed and adjudged in the most favourable and beneficial sense for the best advantage of the said University, as well as in all our courts as elsewhere, notwithstanding any non-recital, mis-recital, uncertainty, or imperfection, in these our letters patent. In witness, &c."

Thus then, it is clear that all proper and recognized schools of medicine will be entitled to send up candidates for degrees, after passing through the regular curricula, to be examined at the metropolitan board. We appeal to every unprejudiced reader whether this Charter if confirmed by Parliament, does or does not involve much of the ridiculed "ONE FACULTY," which we have so long advocated? Candidates are to comply with a certain curriculum fixed by the London Council—they are to be examined in *physic*, *surgery*, *midwifery*, and *pharmacy*—and they are to have only one *kind* of degree—either Bachelor or Doctor of Medicine! This is very like "ONE FACULTY." The candidate may obtain his knowledge in town or country—provided always (which we have invariably advocated) that the school be properly calculated to afford adequate medical instruction. What then becomes of the College of Physicians—of Surgeons—or of Apothecaries? They must answer this question themselves. If the candidate be examined in all branches of medical science and obtain a degree, for what purpose will he repair to Pall Mall East, Lincoln's-inn-fields, or Blackfriars? Perhaps for the pleasure (for there be small honour) of paying forty or fifty pounds—the medical candidates being, as is well known, exuberant in funds!—"*Our* college, called 'LONDON COLLEGE'—and *our* college, called 'KING'S COLLEGE,'" will have no more privileges than Guy's or St. Thomas's—Bartholomew's or St. George's—or, in fact, any other recognized school of medicine! The same applies to Oxford and Cambridge—if indeed these seminaries be recognized as medical schools. In fine, this Charter goes as far as our most sanguine hopes could have anticipated, provided it be confirmed by Parliament, so as to entitle the diplomatists to practise the branches on which they have been examined.

UNFERMENTED BREAD.

Dr. Whiting, of Kennington, has discovered a mode of baking bread, from salt, water, and flour, without fermentation, without yeast or barm. The salt is formed during the manufacture of the bread by the combination of bicarbonate of soda and dilute muriatic acid, so as to throw the dough into a cellular structure, by means of the carbonic acid gas evolved during the process.

In Dr. Whiting's experience this unfermented bread has proved very serviceable in dyspepsy—in disposition to form urinary concretions, &c. We have now been using it ourselves for ten days or a fortnight, and find it to agree remarkably well with the stomach. We anticipate important advantages from its general use. It is quite as pleasant as any other bread that we have eaten. We procure our supply from Mr. Tate, 58, Hlgh Holborn.

DR. BRIGHT ON DISEASED KIDNEYS.

6, Union Street, Southwark, July 1st, 1836.

SIR,—In the number of the Medico-Chirurgical Review of this day, I observe a critique upon a paper by Dr. Bright, on diseased kidneys, published in the Guy's Hospital Reports, in which you have spoken of remarks upon urine by Dr. Barlow, *of Bath*, and also have stated that he is about to publish some further observations upon the same subject in a future number of these Reports.

Now, Dr. Barlow, *of Bath*, is indeed mentioned by Dr. Bright in the paper in question, but he is never there spoken of except with the words "of Bath" after his name, which were inserted by way of distinction from myself, who am the person alluded to by Dr. Bright, as Dr. Barlow, or Dr. G. H. Barlow, and who am, moreover, one of the editors of the reports.

Now, Sir, the short article which I have already inserted in the reports (and which you have ascribed to my namesake), contains opinions which have been controverted by some, and the remarks which I intend shortly to publish, may be open to further objections; it is, therefore, hardly fair upon Dr. Barlow, of Bath, to make him answer-

able for my errors, any more than it is just towards the public to offer to them under the sanction of his well-earned reputation the possibly erroneous opinions of myself.

You will, I am sure, pardon me for troubling you with this communication, as I consider that it is due to yourself to afford you an opportunity of correcting an error into which you have inadvertently fallen.

I am, Sir, your obedient servant,

G. H. BARLOW, M.A. and L.M.
Inceptor Candidate of the College of Physicians.

GOLD POINTED LANCET.

Jersey, 9th July, 1836.

DEAR SIR,—I have invented a lancet with a gold point, for inoculation, and its advantages are,—First, it can at all times be introduced under the cuticle, without extracting blood, a circumstance always calculated to defeat the success of the operation.—2ndly. It cannot rust, and is to be cleaned with facility.—3rdly. It can be kept charged with lymph for a much longer period.—4thly. The idea of operating with a gold instrument, will be always much more pleasing to mother and child.

Believe me to remain, with much esteem, dear Sir, your's &c.

PRIMROSE LYON, Surgeon, R.N.

NEW AND NUTRITIOUS ALIMENT.

[*From Dr. Ryan's Journal.*]

" I have been favoured with a small box of a new and very delicious aliment, by Dr. Waterson, of St. Kitt's, who has also furnished me with the following account of it. This substance is the pith of the roots of the *Canna Coccinea* when eight months old. The preparation of it is more tedious and troublesome than that of arrow-root. The canna coccinea flowers every month, and this has led the French to term it, ' tous les mois ;' and a corrupt English translation, in popular use, is ' toulemong.'

' You will find,' continues Dr. Waterson, ' by using it in your own family, and by analysing it, that it differs most materially from arrow-root; and I consider it, as a diet for the sick, very far superior to sago, tapioca, arrow-root, and gruel. My own experience makes me satisfied, that it is a most nutritious diet, easily digestible, and is, consequently, invaluable in diets for infants and children, and is eminently adapted for persons of dysenteric, diarrhœal, and consumptive habits, because there is, in my belief, less acid in it than any other farinaceous food with which I am acquainted. I have never known it turn sour upon the stomach. It is in great demand for fever diet, thickening soups, and making puddings, as a little goes a great way. It is the ordinary food of the dyspeptic, and in enemas it is truly serviceable for allaying the effects of acrid bile on the coats of the rectum, and for sheathing them in cases of abrasion or inflammation.'

Agreeable to the request of my correspondent, I have tried the tous les mois in my own family. It makes a more consistent and delicious jelly than arrow-root, and is, in my opinion, far superior to it or any other farinaceous powder used in this country as an aliment for infants, invalids, or convalescents. It is prepared like arrow-root, and about half the quantity makes a thicker jelly. I have given it to my own children, used it at my own table, and presented quantities of it to my friends. It deserves the high praise bestowed upon it by Dr. Waterson, and cannot fail to be patronized by the medical profession and the public.

It is cultivated by Mr. Olpherts, a magistrate, at St. Kitt's, and a scientific agriculturist.

It may be procured in London, from Mr. Pearce, Pedler's Acre, Lambeth.

M. RYAN, M.D.

Great Queen Street, St. James's Park, Westminster, Aug. 9, 1836.

☞ Dr. J. Johnson has been using the nutriment above-mentioned, for more than a month past, every day; and can confirm the statements of Drs. Waterson and Ryan in respect to the lightness, nutritious quality, and indisposition to acidity of the article in question.

Extracts from a Petition to Parliament of the Medical Professors of the Andersonian University, for an Extension of University Reform.

SHEWETH,

That the Monopoly of Teaching is enforced with different degrees of rigour and under various modifications in the different Scotch Universities, and your Petitioners conceive that they will best convey an adequate idea of the oppressive nature of this monopoly, by confining their statements to the monopoly assumed by the University of Glasgow.

According to the charter all graduates are constituted teachers, and in the diplomas which your Petitioners, or most of their number, hold of the University, the privilege of teaching is conferred in the most explicit terms; but on their attempting to exercise that privilege, they are informed, by the rejection of their certificates, that the Principal and professors do not consider as obligatory *a verbal promise solemnly given, and confirmed by a written document ! ! !*

That the monopoly in teaching assumed by the Principal and Professors of the University of Glasgow, consists in this, that in conferring degrees in Medicine, for which a certain curriculum of study on the part of the candidate is required, they receive no certificates of instruction but from Professors in Universities, or from teachers in London and Dublin, who, being at a distance from themselves, cannot enter into any immediate competition with them, while they reject the certificates of all other teachers, however well qualified, and even although holding their own diplomas conferring the privilege to teach.

That in consequence of this monopoly, all students who intend to take degrees in Medicine are compelled to attend the Classes of the University, even in the case which may possibly occur, when that attendance can only be regarded as a mis-spending of time. The Professors are thus secluded from all competition, and deprived of most powerful motives, which might stimulate them to exertion. The hurtful consequences of such a system to the rising generation of Medical men, to Medical Science, to the city of Glasgow, to the public at large, and even to the University, by which the system is enforced, are too obvious to require commentary.

That the admission of the certificates of teachers in London and Dublin, while the certificates of your Petitioners are rejected, is at once invidious and unjust. A privilege is thus given by the Principal and Professors to total strangers, which is denied to teachers in this city, most of whom are their own *alumni*, and whose qualifications to teach they can easily ascertain. Nor is it from any distrust of the qualifications of your Petitioners that this privilege is withheld, seeing that any of them would at once receive it on shifting his abode to London or Dublin.

That the concession made to the Teachers in London and Dublin seems to proceed from *the desire of increasing the number of those who take degrees from the University*. To the same motive must be referred the extraordinary course which the Principal and Professors have adopted, inasmuch as while all other Medical Boards throughout the kingdom have been raising the standard of qualification in the Medical Student, *the members of the University of Glasgow have lowered the standard which they require.*

That the University of Glasgow has for some years past assumed a power which no other University in this country ever before pretended to, that of granting licences to practise Surgery.

Last of all, and chiefly, your Petitioners would beg to call the attention of your Right Honourable House to the circumstance, that a monopoly in Teaching does not differ from a monopoly in any other branch of trade. With respect to the latter, it is well known that the profits of the monopolist are paid out of the pockets of those engaged in competing with him in that branch of trade to which his monopoly relates. On the very same principles, it is demonstrable that the whole profits which the Professors of the University derive from their monopoly are paid solely by your Petitioners, and by the other private teachers in this city.

Robert Hunter, M.D. Professor of Anatomy and Physiology.
Alexander J. Hanney, M.D. Professor of the Theory and Practice of Physic.
Andrew Buchanan, M.D. Professor of Materia Medica.
Thomas Graham, Professor of Chemistry.
James Brown, M.D. Professor of Midwifery.
George Watt, Professor of Medical Jurisprudence.

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